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February 7, 2012

Mr. Kenneth Bardo - LU-9J
U.S. EPA Region V
Corrective Action Section
77 West Jackson Boulevard
Chicago, IL 60604-3507

VIA FEDEX

Re: Supplemental Groundwater Monitoring Program
4th Quarter 2011 Data Report
Solutia Inc., W. G. Krummrich Plant, Sauget, IL

Dear Mr. Bardo:

Enclosed please find the 4th Quarter 2011 Data Report for the Supplemental Groundwater Monitoring Program for Solutia Inc.'s W. G. Krummrich Plant, Sauget, IL. (The related Long-Term Monitoring Program report is being submitted separately.)

If you have any questions or comments regarding this report, please contact me at (314) 674-3312 or gmrina@solutia.com

Sincerely,

A handwritten signature in blue ink, appearing to read "Gerald M. Rinaldi", is written over a horizontal line.

Gerald M. Rinaldi
Manager, Remediation Services

Enclosure

cc: Distribution List

DISTRIBUTION LIST

**Supplemental Groundwater Monitoring Program
4th Quarter 2011 Data Report
Solutia Inc., W. G. Krummrich Plant, Sauget, IL**

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**4TH QUARTER 2011
DATA REPORT**

**SUPPLEMENTAL
GROUNDWATER
MONITORING PROGRAM**

**SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS**

Prepared for

Solutia Inc.
575 Maryville Centre Drive
St. Louis, Missouri 63141

February 2012



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1.0 INTRODUCTION

This report presents the results of the 4th Quarter 2011 (4Q11) sampling event performed north of the Solutia Inc. (Solutia) W.G. Krummrich (WGK) Facility located in Sauget, Illinois (Site). This sampling event was conducted as an extension to, and in accordance with procedures outlined in, the Revised Long-Term Monitoring Program (LTMP) Work Plan (Solutia 2009). The scope of this Supplemental Groundwater Monitoring Program (SGMP) was outlined in Solutia correspondence to the United States Environmental Protection Agency Region 5 (USEPA) dated August 16, 2011, and a subsequent August 18, 2011 letter from USEPA. As presented in the latter document, the objective of this work is to collect monitoring and measurement data necessary to verify that the migration of contaminated groundwater from WGK is stable. The Site location is presented in **Figure 1**.

Groundwater Sampling Location and Frequency – Quarterly sampling of the SGMP wells commenced 3Q11, with an expected duration of four quarters, through 2Q12. For the 4Q11 groundwater sampling event, groundwater samples were collected from piezometers GWE-1D, GWE-2D and GWE-3D, along with monitoring well GWE-5D, all located northwest of WGK in Sauget, Illinois. Monitoring well locations are presented in **Figure 2**.

Groundwater Sampling Parameters – During the 4Q11 groundwater sampling event, groundwater samples were analyzed for benzene, chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene using USEPA Method 8260B.

Samples for analysis of Monitored Natural Attenuation (MNA) parameters were collected from five SGMP wells. Evaluation of the types of active natural attenuation processes at the site is based on the following key geochemical parameters:

- Electron Donors: Organic Carbon (Total and Dissolved)
- Electron Acceptors: Iron (Total and Dissolved)
Manganese (Total and Dissolved)
Nitrate
Sulfate
- Biodegradation Byproducts: Carbon Dioxide
Chloride
Methane
- Biodegradation Indicators: Alkalinity

2.0 FIELD PROCEDURES

URS Corporation (URS) conducted piezometer and monitoring well installation activities in November 2011, prior to 4Q11 groundwater sampling activities on December 5 and 6, 2011. Sampling activities were completed in accordance with procedures outlined in the Revised

LTMP Work Plan, including the collection of appropriate quality assurance and quality control (QA/QC) samples.

The following section summarizes field investigative procedures:

Monitoring Well Installation and Development – Two piezometers and a permanent monitoring well were installed at the northeast corner of Mississippi and Victory Avenues in East St. Louis, Illinois. A piezometer was screened in each of the shallow (GWE-5S) and middle (GWE-5M) hydrogeologic units (SHU and MHU, respectively), and the monitoring well (GWE-5D) was installed in the deep hydrogeologic unit (DHU) to facilitate quarterly collection of groundwater samples (**Figure 2**).

Installation was completed by Roberts Environmental Drilling Inc. (REDI) via hollow-stem auger and mud-rotary drilling techniques. The subsurface stratigraphy was logged by a qualified URS Corporation (URS) field scientist in accordance with the Unified Soil Classification System (USCS) protocols and URS procedures. The field scientist noted soil attributes such as color, particle size, consistency, moisture content, structure, odor (if obvious) and organic content (if visible). A soil boring log is included in **Appendix A**.

The piezometers (GWE-5S and GWE-5M) were constructed using polyvinyl chloride (PVC) riser pipe and 10-foot long screens with 0.01 inch openings. Monitoring well GWE-5D was constructed using stainless steel riser pipe and a 5-foot long screen with 0.01 inch openings.

Upon completion of each borehole, the screen and riser pipe were lowered into the boring through the augers. Filter sand was then poured into the borehole through the augers and allowed to settle, followed by bentonite chips filling the remaining annular space to approximately 1.5 feet below ground surface. Once the grout was set the well was completed with a locking flush mount protector. Concrete pads were constructed around each well protector. Wellheads were secured using lockable-expandable caps.

The monitoring well and piezometers were constructed in accordance with the URS SOP on monitoring well installation. In addition to a monitoring well boring log, associated piezometer/well construction diagrams are included in **Appendix A**.

Following the installation, the monitoring well and piezometers were developed in accordance with the URS SOP on monitoring well development. Development was performed by REDI, under the supervision of URS, using a submersible air-lift pump until a minimum of five well volumes were removed and fine-grained materials were removed.

Groundwater Level Measurements – URS personnel used an electronic oil/water interface probe to measure depth to static groundwater levels and if present, the thickness of non-aqueous phase liquid (NAPL), if present, to 0.01 feet. As part of the LTMP, depth to groundwater measurements were collected on November 10, 2011 from accessible existing

WGK monitoring wells (i.e., BSA-, CPA-, GM-, K-, PS-MW- and PMA-series) and piezometer clusters (installed for the Sauget Area 2 RI/FS and WGK CA-750 Environmental Indicator projects) specified in the Revised LTMP Work Plan (Solutia 2009) (**Figure 3**). This group of wells and piezometers includes those that compose the SGMP. Depth to groundwater measurements were collected from piezometers GWE-5S and GWE-5M, along with monitoring well GWE-5D on December 21, 2011 following piezometer/well installation. NAPL was not detected within any of the four SGMP monitoring wells.

Well gauging information for the 4Q11 event is presented in **Table 1**. As the middle and deep hydrogeologic units are the primary migration pathway for constituents present in groundwater at, and in the vicinity of, the WGK Facility, a groundwater potentiometric surface map based on water level data from wells screened in the Middle Hydrogeologic Unit (MHU) and Deep Hydrogeologic Unit (DHU) is presented as **Figure 3**.

Groundwater Sampling – Low-flow sampling techniques were used for groundwater sample collection. At each monitoring well, disposable, low-density polyethylene tubing was attached to a submersible pump, which was then lowered into the well to the middle of the screened interval. Monitoring wells were purged at a rate of 150-400 mL/minute to minimize drawdown. If significant drawdown occurred, flow rates were reduced.

Drawdown was measured periodically throughout purging to ensure that it did not exceed 25% of the distance between the pump intake and the top of the screen. Once the flow rate and drawdown were stable, field measurements were collected approximately every three to five minutes. Purging of a well was considered complete when the following water quality parameters remained stable over three consecutive flow-through cell volumes:

Parameter	Stabilization Guidelines
Dissolved Oxygen (DO)	+/- 10% or +/-0.2 mg/L, whichever is greatest
Oxidation-Reduction Potential (ORP)	+/- 20 mV
pH	+/- 0.2 units
Specific Conductivity	+/- 3%

Sampling commenced upon completion of purging. Prior to sample collection, the flow-through cell was bypassed to allow for collection of uncompromised groundwater. Samples were collected at a flow rate less than or equal to the rate at which stabilization was achieved. Sample containers were filled based on laboratory analysis to be performed, in the following order:

- Volatile Organic Compounds (VOCs)
- Gas Sensitive Parameters (e.g., methane, carbon dioxide)
- General Chemistry (i.e., alkalinity, chloride, total and dissolved iron, total and dissolved manganese, nitrate, sulfate, and total and dissolved organic carbon)
- Field Parameters (i.e., dissolved oxygen, ferrous iron, and oxidation-reduction potential).

Samples collected for ferrous iron, dissolved iron and dissolved manganese analysis were filtered in the field using in-line 0.2 micron disposable filters, represented by a notation of “F (0.2)” in the sample nomenclature.

Quality assurance/quality control (QA/QC) samples consisting of analytical duplicates (AD) and equipment blanks (EB) were collected at a rate of 10% and matrix spike/matrix spike duplicates (MS/MSD) were collected at a rate of 5%. In addition, trip blanks accompanied each shipment containing samples for VOC analysis.

Each investigative or QC sample was labeled immediately following collection. Each sample identification number consisted of the following nomenclature “Well ID-MW#-MMYY-QAC” where:

- **Well ID** includes “GWE-” or “PS-”, followed by **MW-#D**, denoting DHU Monitoring Well Number
- **MMYY** – Month and year of sampling quarter, e.g.: Fourth quarter (November) 2011, 1111
- **QAC** denotes QA/QC sample
 - **AD** – analytical duplicate
 - **EB** – equipment blank
 - **MS** or **MSD** – Matrix Spike or Matrix Spike Duplicate

Upon collection and labeling, sample containers were immediately placed inside an iced cooler, packed in such a way as to help prevent breakage and maintain inside temperature at or below approximately 4°C. Field personnel recorded the project identification and number, sample description/location, required analysis, date and time of sample collection, type and matrix of sample, number of sample containers, preservative used (if applicable), analysis requested/comments, and sampler signature/date/time, with permanent ink on the chain-of-custody (COC). Prior to shipment, coolers were sealed between the lid and sides of the cooler with a custody seal, and then shipped to TestAmerica in Savannah, Georgia by means of an overnight delivery service. Field sampling data sheets are included in **Appendix B**, while copies of COCs are included in **Appendix C**.

Field personnel and equipment were decontaminated according to procedures specified in the Revised LTMP Work Plan to ensure the health and safety of those present, maintain sample integrity, and minimize movement of contamination between the work area and off-site locations. Equipment used on-site was decontaminated prior to beginning work, between sampling locations and/or uses, and prior to demobilizing from the site. Non-disposable purging and sampling equipment was decontaminated between each sample acquisition by washing with an Alconox® or equivalent detergent wash, a potable water rinse, and a distilled water rinse. Personnel and small equipment decontamination was performed at the sample locations. Disposable sampling equipment, such as gloves were collected and bagged on a daily basis

and managed in accordance with Solutia procedures. Purge water was containerized and handled per Solutia procedures.

3.0 LABORATORY PROCEDURES

Samples were analyzed by TestAmerica for VOCs and MNA parameters, using the following methodologies:

- VOCs, via USEPA SW-846 Method 8260B (dichlorobenzenes were quantitated using Method 8260B because of potential volatilization losses associated with Method 8270)
- MNA parameters: alkalinity (310.1), carbon dioxide (310.1), chloride (325.2), total and dissolved iron (6010B), total and dissolved manganese (6010B), dissolved gases (RSK 175), nitrate (353.2), sulfate (375.4), and total and dissolved organic carbon (415.1).

Laboratory results were provided in electronic and hard copy formats.

4.0 QUALITY ASSURANCE

Analytical data were reviewed for quality and completeness, as described in the Revised Long Term Monitoring Program Work Plan (Solutia 2009). Data qualifiers were added, as appropriate, and are included on the data tables and the laboratory result pages. The Quality Assurance report is included as **Appendix D**. The laboratory report along with data review and validation reports are included in **Appendix E**.

A total of 7 groundwater samples (four investigative) samples, one field duplicate, one MS/MSD pair and one equipment blank) were prepared and analyzed by TestAmerica Savannah for combinations of VOCs, dissolved gases, metals, and general chemistry. In addition, three trip blanks were included in the coolers that contained samples for VOC analysis and were analyzed for VOCs. The results for the various analyses were submitted as sample delivery groups (SDGs) KPS069 and KPS070. The samples contained in SDGs KPS069 and KPS070 are listed below:

KPS069	KPS070
GWE-5D-1211	GWE-1D-1211
4Q11 SUPP Trip Blank #1	GWE-3D-1211
	GWE-3D-1211-AD
	GWE-2D-1211
	GWE-2D-1211-EB
	4Q11 SUPP Trip Blank #2
	4Q11 SUPP Trip Blank #3

Evaluation of the groundwater analytical data followed procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods

Data Review (USEPA 2008), USEPA Contract Laboratory Program National Functional Guidelines for Superfund Inorganic Data Review (USEPA 2010), and the Revised Long-Term Monitoring Program Work Plan (Solutia 2009).

Based on the above mentioned criteria, groundwater results reported for the analyses performed were accepted for their intended use. Acceptable levels of accuracy and precision, based on MS/MSD, laboratory control sample (LCS), surrogate and field duplicate data were achieved for this SDG to meet the project objectives. Completeness which is defined to be the percentage of analytical results which are judged to be valid, including estimated detect/non-detect (**J/UJ**) data was 100 percent.

5.0 OBSERVATIONS

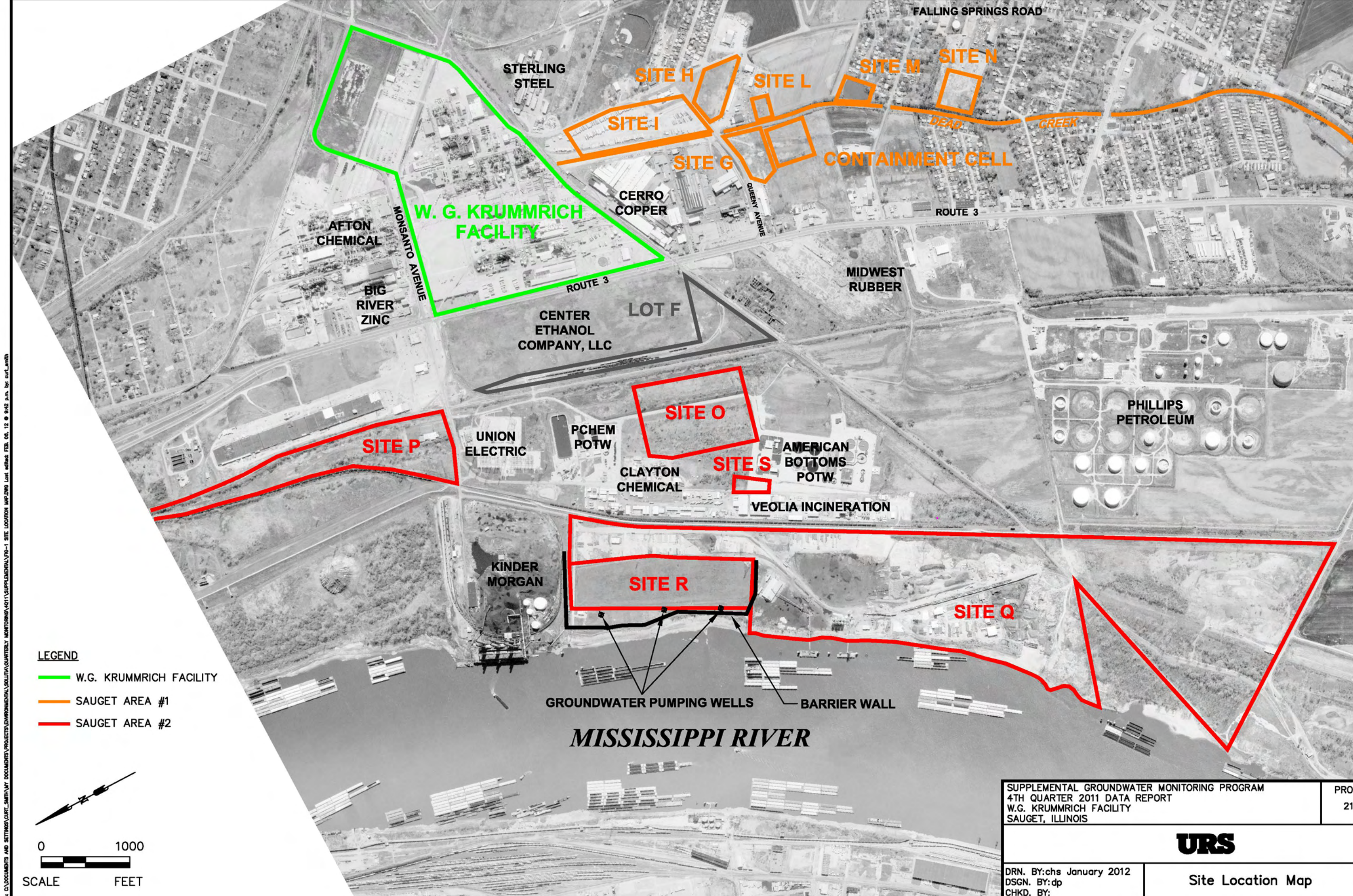
Groundwater analytical detections and MNA results for the 4Q11 SGMP sampling event are presented in **Tables 2** and **3**, respectively. Benzene, chlorobenzene, 1,2-dichlorobenzene and 1,4, dichlorobenzene were reported in samples collected from all three piezometers GWE-1D, -2D, -3D and monitoring well GWE-5D during this sampling event. In addition, 1,3-dichlorobenzene was reported in the sample collected from GWE-5D. Total chlorobenzenes (i.e., the sum of chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene) were detected at concentrations ranging from 16.6 µg/L (GWE-1D) to 1,730.9 µg/L (GWE-5D). **Figure 4** displays concentrations of benzene and total chlorobenzenes from the 4Q11 sampling event.

In accordance with the scope outlined for the SGMP, for subsequent groundwater sampling events (i.e. 1st Quarter 2012 (1Q12) and 2nd Quarter 2012 (2Q12)), groundwater samples will be collected from piezometers GWE-1D, -2D, -3D and monitoring well GWE-5D.

6.0 REFERENCES

- Solutia Inc, 2009. Revised Long Term Monitoring Program Work Plan, Solutia Inc., W.G. Krummrich Facility, Sauget, Illinois, May 2009.
- Solutia Inc, 2011. Supplemental Groundwater Monitoring Program, Solutia Inc., W.G. Krummrich Facility, Sauget, Illinois, August 2011.
- USEPA, 2008. Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review
- USEPA, 2010. Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.

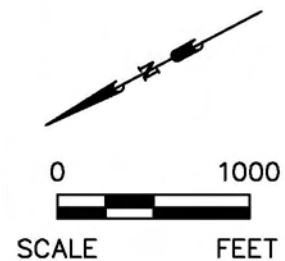
Figures



FILE: C:\DOCUMENTS AND SETTINGS\CHART-SMITH\PROJECTS\ENVIRONMENTAL\SOLUTIONS\QUARTERLY MONITORING\4011\SUPPLEMENTAL\YR-1 SITE LOCATION MAP.DWG Last edited: FEB. 08, 12 @ 9:42 p.m. by: curf_smith

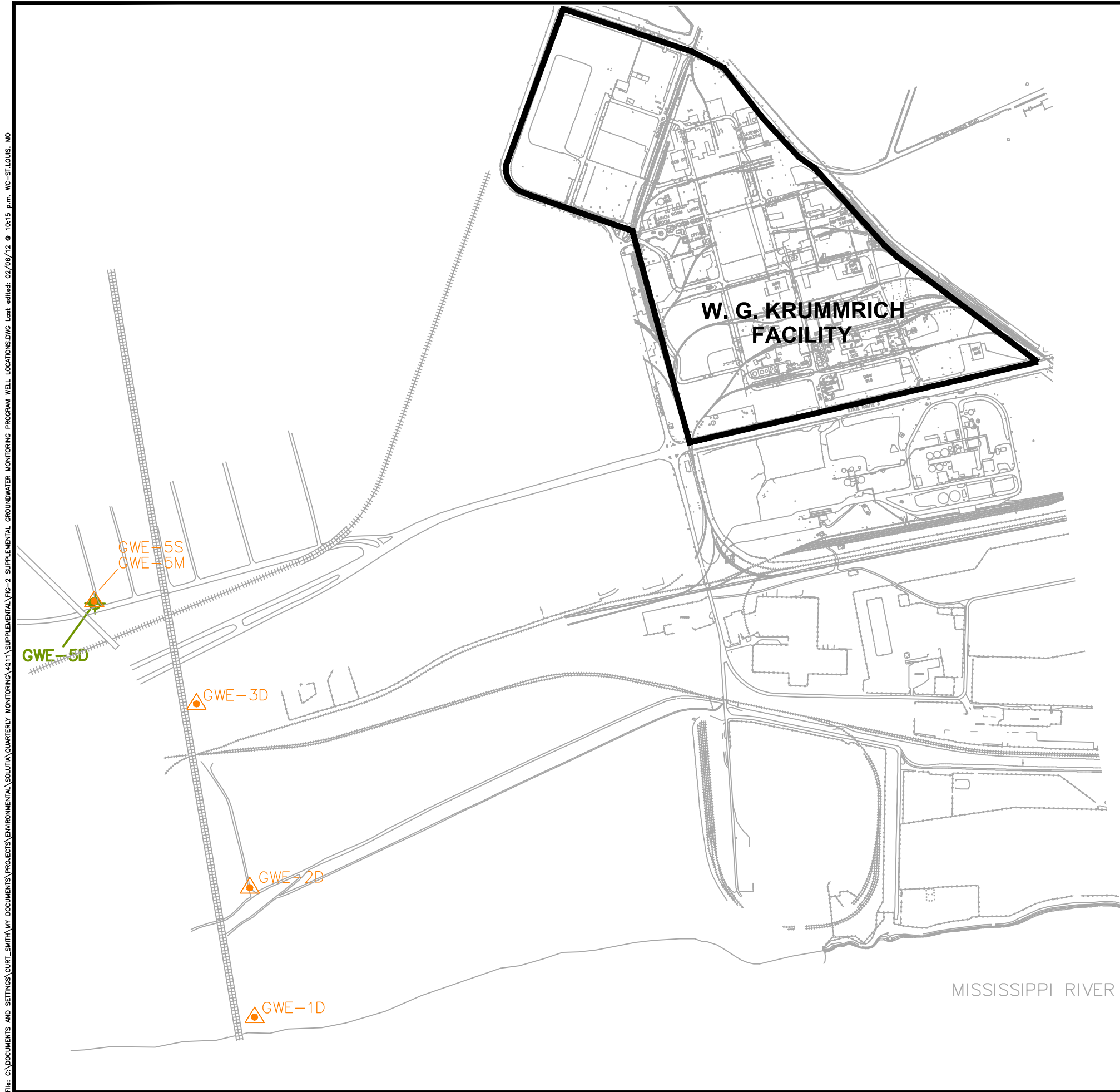
LEGEND

- W.G. KRUMMRICH FACILITY
- SAUGET AREA #1
- SAUGET AREA #2



SUPPLEMENTAL GROUNDWATER MONITORING PROGRAM 4TH QUARTER 2011 DATA REPORT W.G. KRUMMRICH FACILITY SAUGET, ILLINOIS		PROJECT NO. 21562703
DRN. BY:chs January 2012 DSGN. BY:dp CHKD. BY:		FIG. NO. 1
URS		
Site Location Map		

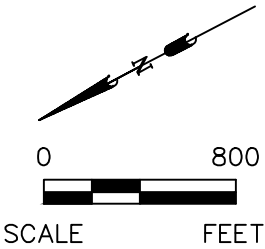
File: C:\DOCUMENTS AND SETTINGS\CURT_SMITH\MY DOCUMENTS\PROJECTS\ENVIRONMENTAL\SOLITA\QUARTERLY MONITORING\4Q11\SUPPLEMENTAL\FIG-2 SUPPLEMENTAL GROUNDWATER MONITORING PROGRAM WELL LOCATIONS.DWG Last edited: 02/06/12 @ 10:15 p.m. WC-ST. LOUIS, MO



LEGEND

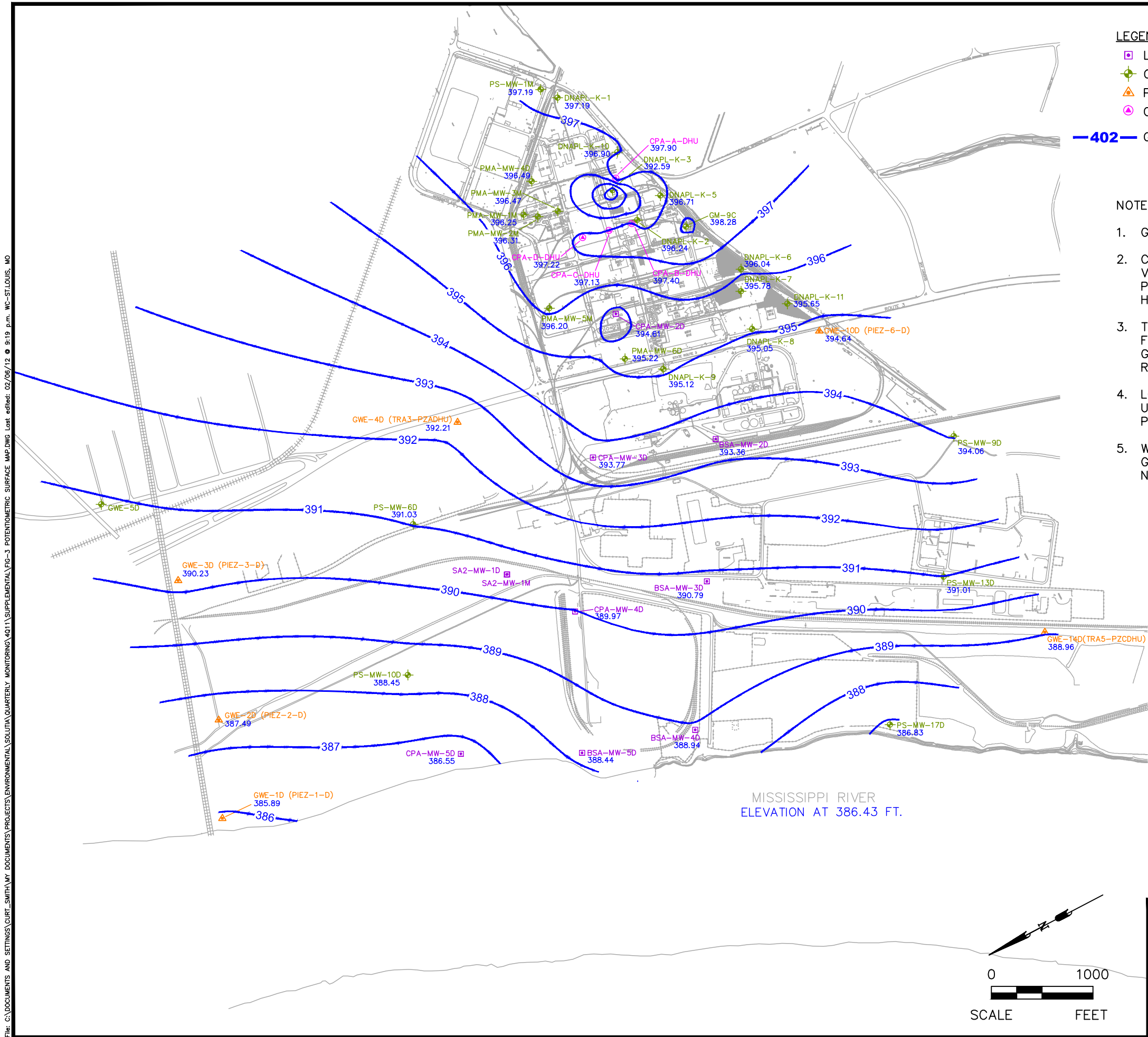
GWE-5D SUPPLEMENTAL GROUNDWATER MONITORING WELL

GWE-3D SUPPLEMENTAL GROUNDWATER PIEZOMETER



SUPPLEMENTAL GROUNDWATER MONITORING PROGRAM 4TH QUARTER 2011 DATA REPORT W.G. KRUMMRICH FACILITY SAUGET, ILLINOIS		PROJECT NO. 21562703
URS		
DRN. BY:djd December 2011 DSGN. BY:dp CHKD. BY:	Supplemental Groundwater Monitoring Program Well Locations	FIG. NO. 2

File: C:\DOCUMENTS AND SETTINGS\CURT_SMITH\MY DOCUMENTS\PROJECTS\ENVIRONMENTAL\SOLUTIONS\QUARTERLY MONITORING\4Q11\SUPPLEMENTAL\FIG-3 POTENTIOMETRIC SURFACE MAP.DWG Last edited: 02/06/12 @ 9:19 p.m. WC-STLOUIS, MO



LEGEND

- LONG-TERM MONITORING WELL USED FOR GROUNDWATER CONTOURING
- OTHER MONITORING WELL USED FOR GROUNDWATER CONTOURING
- PIEZOMETER CLUSTER USED FOR GROUNDWATER CONTOURING
- CPA MONITORING WELL USED FOR GROUNDWATER CONTOURING
- 402— GROUNDWATER ELEVATION CONTOUR (FT NAVD)

NOTES:

- GROUNDWATER LEVELS WERE MEASURED NOVEMBER 10, 2011.
- CONTOURS GENERATED PRIMARILY USING SURFER SOFTWARE VERSION 8. SOME INTERPRETATION WAS DONE USING PROFESSIONAL JUDGMENT AND CONTOUR LINES WERE MODIFIED BY HAND.
- THE MISSISSIPPI RIVER STAGE ELEVATION PRESENTED ON THE FIGURE IS AN AVERAGE ELEVATION FOR THE TIME OF THE GAUGING EVENT. THE INFORMATION WAS OBTAINED FROM THE SITE R BUBBLER.
- LOCATIONS WITH WELLS SCREENED IN BOTH THE MHU AND DHU UTILIZED THE DHU WELL FOR DEVELOPMENT OF THE POTENTIOMETRIC SURFACE MAP.
- WELL GWE-5D WAS NOT INCLUDED IN THE COMPREHENSIVE GAUGING EVENT BECAUSE IT WAS NOT COMPLETED UNTIL NOVEMBER 23, 2011.

SUPPLEMENTAL GROUNDWATER MONITORING PROGRAM 4TH QUARTER 2011 DATA REPORT W.G. KRUMMRICH FACILITY SAUGET, ILLINOIS		PROJECT NO. 21562682
URS		
DRN. BY:chs January 2012 DSGN. BY:dp CHKD. BY:	Potentiometric Surface Map Middle/Deep Hydrogeologic Unit	FIG. NO. 3

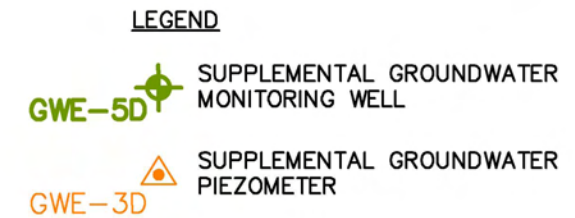
W. G. KRUMMRICH
FACILITY

Chemical	4Q11 Results
Benzene	53
Total Chlorobenzenes	1,731

Chemical	4Q11 Results
Benzene	11/11
Total Chlorobenzenes	1275 / 1176

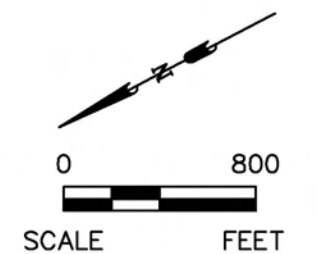
Chemical	4Q11 Results
Benzene	18
Total Chlorobenzenes	23

Chemical	4Q11 Results
Benzene	11
Total Chlorobenzenes	17



NOTES:

1. TOTAL CHLOROBENZENES RESULTS INCLUDE THE SUM OF MONOCHLOROBENZENE, 1,2-DICHLOROBENZENE, 1,3-DICHLOROBENZENE, AND 1,4-DICHLOROBENZENE.
2. RESULTS SHOWN ARE IN ug/L.
3. ND DENOTES ANALYTE OR ANALYTES NOT DETECTED.



SUPPLEMENTAL GROUNDWATER MONITORING PROGRAM 4TH QUARTER 2011 DATA REPORT W.G. KRUMMRICH FACILITY SAUGET, ILLINOIS		PROJECT NO. 21562703
URS		
DRN. BY:djd January 2012 DSGN. BY:dp CHKD. BY:	Total Chlorobenzenes Results	FIG. NO. 4

Tables

See last page of table for notes.

Table 1
Monitoring Well Gauging Information

Well ID			Construction Details						November 10, 2011		
	Northing	Easting	Ground Elevation (feet)	Casing Elevation (feet)	Depth to Top of Screen (feet bgs)	Depth to Bottom of Screen (feet bgs)	Top of Screen Elevation (feet)	Bottom of Screen Elevation (feet)	Depth to Water (feet btoc)	NAPL Thickness (feet)	Water Elevation (feet)
Shallow Hydrogeologic Unit (SHU 395-380 feet NAVD 88)											
BSA-MW-1S	702077.000	2294393.200	409.49	412.31	19.68	24.68	389.81	384.81	16.97	--	395.34
GWE-1S	708917.243	2292547.419	413.83	416.54	13	23	403.54	393.54	dry	--	dry
GWE-2S	708489.510	2293419.566	417.45	417.10	17	27	400.10	390.10	26.32	--	390.78
GWE-3S	708190.663	2294821.811	415.03	417.01	25	35	392.01	382.01	37.64	--	379.37
GWE-4S	705014.086	2294892.173	406.16	405.75	20	30	385.75	375.75	13.48	--	392.27
GWE-5S*	708480.594	2295834.939	408.47	408.05	17.91	27.91	390.56	380.56	17.59	--	390.46
PMA-MW-1S	703478.700	2296389.400	410.30	410.06	20.18	25.18	390.12	385.12	12.76	--	397.30
PMA-MW-2S	703363.700	2296305.800	412.27	411.66	22.94	27.94	389.33	384.33	15.35	--	396.31
PMA-MW-3S	703165.200	2296261.000	412.37	412.06	22.71	27.71	389.66	384.66	15.54	--	396.52
PMA-MW-4S	703252.900	2296642.300	411.09	410.43	20.99	25.99	390.10	385.10	13.65	--	396.78
SA2-MW-1S	705296.162	2293339.110	403.43	406.01	13.55	23.55	392.46	382.46	23.19	--	382.82
Middle Hydrogeologic Unit (MHU 380-350 feet NAVD 88)											
GWE-1M	708917.243	2292547.419	413.83	416.26	69.40	79.40	346.86	336.86	30.01	--	NM
GWE-2M	708489.593	2293419.380	417.82	417.57	67.80	77.80	349.77	339.77	29.64	--	387.93
GWE-3M	708190.663	2294821.811	415.03	417.84	68.30	78.30	349.54	339.54	27.58	--	390.26
GWE-4M	705019.113	2294893.322	406.11	405.86	43.76	49.76	362.10	356.10	13.48	--	392.38
GWE-5M*	708492.425	2295838.821	408.59	408.20	48.10	58.10	360.49	350.49	17.62	--	390.58
PMA-MW-1M	703480.400	2296384.600	410.32	410.08	54.54	59.54	355.78	350.78	13.83	--	396.25
PMA-MW-2M	703369.400	2296306.200	412.26	411.93	56.87	61.87	355.39	350.39	15.62	--	396.31
PMA-MW-3M	703161.200	2296259.500	412.36	412.10	57.07	62.07	355.29	350.29	15.63	--	396.47
PMA-MW-5M	703692.400	2295455.200	411.27	410.97	52.17	57.17	359.10	354.10	14.77	--	396.20
PS-MW-1M	702746.100	2297398.200	409.37	412.59	37.78	42.78	371.59	366.59	15.40	--	397.19
SA2-MW-1M	705301.561	2293339.773	403.55	406.13	53.26	63.26	352.87	342.87	23.60	--	382.53
Deep Hydrogeologic Unit (DHU 350 feet NAVD 88 - Bedrock)											
BSA-MW-2D	702857.300	2293542.900	412.00	415.13	68.92	73.92	343.08	338.08	21.77	--	393.36
BSA-MW-3D	703598.900	2292346.700	412.91	415.74	107.02	112.02	305.89	300.89	24.95	--	390.79
BSA-MW-4D	704395.700	2291107.100	425.00	424.69	118.54	123.54	306.46	301.46	35.75	--	388.94
BSA-MW-5D	705432.969	2291536.060	420.80	420.49	115.85	120.85	304.95	299.95	32.05	--	388.44
CPA-MW-1D	702995.300	2296036.400	408.62	408.32	66.12	71.12	342.50	337.50	15.69	--	392.63
CPA-MW-2D	703140.800	2295097.700	408.51	408.20	99.96	104.96	308.55	303.55	13.59	--	394.61
CPA-MW-3D	704011.185	2293955.106	410.87	410.67	108.20	113.20	302.67	297.67	16.90	--	393.77
CPA-MW-4D	704884.000	2292700.900	421.57	421.20	116.44	121.44	305.13	300.13	31.23	--	389.97
CPA-MW-5D	706543.600	2291992.000	411.03	413.15	107.63	112.63	303.40	298.40	26.60	--	386.55

Table 1
Monitoring Well Gauging Information

Well ID			Construction Details						November 10, 2011		
	Northing	Easting	Ground Elevation (feet)	Casing Elevation (feet)	Depth to Top of Screen (feet bgs)	Depth to Bottom of Screen (feet bgs)	Top of Screen Elevation (feet)	Bottom of Screen Elevation (feet)	Depth to Water (feet btoc)	NAPL Thickness (feet)	Water Elevation (feet)
Deep Hydrogeologic Unit (DHU 350 feet NAVD 88 - Bedrock) (continued)											
DNAPL-K-1	702637.276	2297248.692	413.07	415.56	108.20	123.20	304.87	289.87	18.37	--	397.19
DNAPL-K-2	702516.436	2295812.713	407.94	407.72	97.63	112.63	310.31	295.31	11.48	--	396.24
DNAPL-K-3	702591.747	2296185.854	412.13	411.91	104.80	119.80	307.33	292.33	19.32	--	392.59
DNAPL-K-4	702975.946	2296048.688	409.48	409.15	102.55	117.55	306.93	291.93	16.54	--	392.61
DNAPL-K-5	702200.888	2295917.619	412.27	411.91	102.15	117.15	310.12	295.12	15.20	--	396.71
DNAPL-K-6	701842.363	2294900.821	410.43	410.09	102.47	117.47	307.96	292.96	14.05	--	396.04
DNAPL-K-7	701947.284	2294707.896	408.32	407.72	100.40	115.40	307.92	292.92	11.94	--	395.78
DNAPL-K-8	702026.795	2294328.368	408.56	411.38	102.65	117.65	305.91	290.91	16.33	--	395.05
DNAPL-K-9	702986.659	2294396.229	406.45	405.97	97.42	112.42	309.03	294.03	10.85	--	395.12
DNAPL-K-10	702372.180	2296495.020	413.50	413.25	105.43	120.43	308.07	293.07	16.35	--	396.90
DNAPL-K-11	701602.110	2294384.230	412.20	411.78	105.46	120.46	306.74	291.74	16.13	--	395.65
GM-9C	702123.000	2295527.000	409.54	411.21	88.00	108.00	321.54	301.54	12.93	--	398.28
GWE-1D	708917.2434	2292547.4187	412.80	415.60	117.00	127.00	295.80	285.80	29.71	--	385.89
GWE-2D	708489.7996	2293419.3725	417.45	417.14	127.00	137.00	290.45	280.45	29.65	--	387.49
GWE-3D	708190.663	2294821.811	415.03	417.66	104.60	114.60	313.06	303.06	27.43	--	390.23
GWE-4D	705022.782	2294894.495	406.05	405.74	74.00	80.00	332.05	326.05	13.53	--	392.21
GWE-5D*	708503.984	2295842.175	408.79	408.38	100.43	105.43	308.36	303.36	18.43	--	389.95
GWE-10D	701453.118	2293997.843	410.15	412.87	102.50	112.50	307.65	297.65	18.23	--	394.64
GWE-14D	700852.103	2290273.514	420.47	422.90	90.00	96.00	330.47	324.47	33.94	--	388.96
PMA-MW-4D	703248.900	2296639.200	411.22	410.88	68.84	73.84	342.38	337.38	14.39	--	396.49
PMA-MW-6D	703270.300	2294662.400	407.63	407.32	96.49	101.49	311.14	306.14	12.10	--	395.22
PS-MW-6	705885.100	2294213.500	404.11	406.63	102.32	107.32	304.31	299.31	15.60	--	391.03
PS-MW-9D	700773.800	2292454.500	403.92	403.52	100.40	105.40	303.52	298.52	9.46	--	394.06
PS-MW-10	706634.200	2292926.700	409.63	412.18	103.78	108.78	308.40	303.40	23.73	--	388.45
PS-MW-13D	701516.900	2291281.000	405.80	405.53	106.08	111.08	299.72	294.72	14.52	--	391.01
PS-MW-17D	702674.300	2290245.400	420.22	423.26	121.25	126.25	298.97	293.97	36.43	--	386.83
SA2-MW-1D	705306.772	2293340.413	403.79	406.03	105.01	115.01	301.02	291.02	23.86	--	382.17

Notes:

* - Measured on 12/2/11

bgs - below ground surface

btoc - Below top of casing

Coordinates--State Plane 1983, Illinois West, NAD 1983.

Elevation based upon North American Vertical Datum (NAVD) 88 datum

Table 2
Groundwater Analytical Results

Sample ID	Sample Date	VOC (µg/L)				
		Benzene	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene
GWE-1D-1211	12/5/2011	11	11	1.6	<1	4
GWE-2D-1211	12/6/2011	18	19	1.2	<1	2.9
GWE-3D-1211	12/6/2011	11	1200	11	<10	64
GWE-3D-1211-AD	12/6/2011	11	1100	11	<10	65
GWE-5D-1211	12/5/2011	53	1600 D	17	3.9	110

Notes:

µg/L = micrograms per liter

< = Result is non-detect, less than the reporting limit given.

BOLD indicates concentration greater than reporting limit.

AD = Analytical Duplicate

D = compound analyzed at a dilution

Table 3
Monitored Natural Attenuation Results Summary

Sample ID	Sample Date	Alkalinity (mg/L)	Carbon Dioxide (mg/L)	Chloride (mg/L)	Dissolved Oxygen (mg/L)	Ethane (ug/L)	Ethylene (ug/L)	Ferrous Iron (mg/L)	Iron (mg/L)	Iron, Dissolved (mg/L)	Manganese (mg/L)	Manganese, Dissolved (mg/L)	Methane (ug/L)	Nitrogen, Nitrate (mg/L)	Sulfate as SO ₄ (mg/L)	Dissolved Organic Carbon (mg/L)	Total Organic Carbon (mg/L)	ORP (mV)
GWE-1D-1211	12/5/2011	460	28	70	0.09	<1.1	<1		19		0.53		5.6	0.064	300		2.5	143.96
GWE-1D-F(0.2)-1211	12/5/2011							>3.3		18		0.52				2.5		
GWE-2D-1211	12/6/2011	500	25	95	0.28	<1.1	<1		18		0.41		1.1	<0.05	310		2.8	171.35
GWE-2D-F(0.2)-1211	12/6/2011							>3.3		17		0.39				3		
GWE-3D-1211	12/6/2011	410	21	59	-0.06	<1.1	<1		12		0.36		16	<0.05	170		2.8	176.78
GWE-3D-F(0.2)-1211	12/6/2011							>3.3		13		0.38				3.1		
GWE-5D-1211	12/5/2011	400	33	89	-0.21	<1.1	<1		13		0.39		58	<0.05	280		16	75.0
GWE-5D-F(0.2)-1211	12/5/2011							>3.3		14		0.42				16		

Notes:

DO and ORP were measured in the field using an In-Situ Troll 9500 equipped with a flow-thru cell. Values presented represent final measurements before sampling

Ferrous Iron readings were measured in the field using a LaMotte Colorimeter after the groundwater passed through a 0.2 µm filter

F(0.2) = Sample was filtered utilizing a 0.2 µm filter during sample collection

mg/L = milligrams per liter

mV = millivolts

ug/L = micrograms per liter


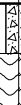
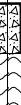




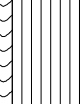



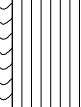


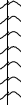
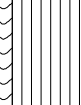


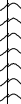



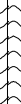
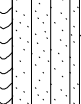
< = Result is non-detect, less than the reporting limit given

A blank space indicates sample not analyzed for select analyte

Appendix A

Soil Boring Log and Piezometer/Monitoring Well Construction Diagrams

LOG OF BORING AND WELL CONSTRUCTION DETAIL GWE-5

Depth In feet	Piezometer/Well Construction			Symbol	USCS	LOG OF BORING AND WELL CONSTRUCTION DETAIL GWE-5		NOTES
						Completion Date: 11/23/11 Casing Elevation: 408.05 (S), 408.20 (M), 408.38 (D) Ground Elevation: 408.47 (S), 408.59 (M), 408.79 (D)	Coordinates Northing: N/A Easting: N/A	
	GWE-5 S	GWE-5 M	GWE-5 D			DESCRIPTION		
					TOPSOIL			
5					ML	SILT (ML), soft, dry, brown		
10					SM	Silty SAND (SM), dry, brown		
15					SP	SAND (SP), brown, well graded fine to medium	▼	
20					SP	Becomes wet	▽	
25					SP			

Completion Depth: 107 ft bgsProject No.: 21562703Project Name: Solutia W GK. Supplemental Monitoring ProgramDrilling Contractor: REDIDrilling method: HSA, Mud RotaryLogged by: Palmer/HartWater Depth: 25 ft., After ATD hrs.Water Depth: 18 ft., After 28 days

▽ Water level at time of drilling

▼ Water level after drilling

USC based on field
visual observations

LOG OF BORING AND WELL CONSTRUCTION DETAIL GWE-5

Depth In feet	Piezometer/Well Construction			Symbol	USCS	LOG OF BORING AND WELL CONSTRUCTION DETAIL GWE-5	
	GWE-5 S	GWE-5 M	GWE-5 D			Completion Date: 11/23/11 Casing Elevation: 408.05 (S), 408.20 (M), 408.38 (D) Ground Elevation: 408.47 (S), 408.59 (M), 408.79 (D) DESCRIPTION	Coordinates Northing: N/A Easting: N/A NOTES
35							
40							
45					SP	Brown to gray, well graded, medium to coarse	
50							
55							

Completion Depth: 107 ft bgsProject No.: 21562703Project Name: Solutia W GK. Supplemental Monitoring ProgramDrilling Contractor: REDIDrilling method: HSA, Mud RotaryLogged by: Palmer/HartWater Depth: 25 ft., After ATD hrs.Water Depth: 18 ft., After 28 days

▽ Water level at time of drilling

▼ Water level after drilling

USC based on field
visual observations

LOG OF BORING AND WELL CONSTRUCTION DETAIL GWE-5

Depth In feet	Piezometer/Well Construction			Symbol	USCS	LOG OF BORING AND WELL CONSTRUCTION DETAIL GWE-5	
	GWE-5 S	GWE-5 M	GWE-5 D			Completion Date: 11/23/11 Casing Elevation: 408.05 (S), 408.20 (M), 408.38 (D) Ground Elevation: 408.47 (S), 408.59 (M), 408.79 (D) DESCRIPTION	Coordinates Northing: N/A Easting: N/A NOTES
65						Trace of rounded gravel	
70						With rounded gravel	
75					SP		
80							
85							

Completion Depth: 107 ft bgsProject No.: 21562703Project Name: Solutia W GK. Supplemental Monitoring ProgramDrilling Contractor: REDIDrilling method: HSA, Mud RotaryLogged by: Palmer/HartWater Depth: 25 ft., After ATD hrs.Water Depth: 18 ft., After 28 days

▽ Water level at time of drilling

▼ Water level after drilling

USC based on field
visual observations

LOG OF BORING AND WELL CONSTRUCTION DETAIL GWE-5

Depth In feet	Piezometer/Well Construction			Symbol	USCS	LOG OF BORING AND WELL CONSTRUCTION DETAIL GWE-5	
	GWE-5 S	GWE-5 M	GWE-5 D			Completion Date: 11/23/11 Casing Elevation: 408.05 (S), 408.20 (M), 408.38 (D) Ground Elevation: 408.47 (S), 408.59 (M), 408.79 (D) DESCRIPTION	Coordinates Northing: N/A Easting: N/A NOTES
95							
100							
105							
110						Terminated boring on bedrock surfac at 107' bgs. Installed shallow and midle piezometers at the following depths, Shallow: 28' bgs Medium: 58' bgs and deep monitoring well Deep: 106' bgs	
115							

Completion Depth: 107 ft bgsProject No.: 21562703Project Name: Solutia W GK. Supplemental Monitoring ProgramDrilling Contractor: REDIDrilling method: HSA, Mud RotaryLogged by: Palmer/HartWater Depth: 25 ft., After ATD hrs.Water Depth: 18 ft., After 28 days

▽ Water level at time of drilling

▼ Water level after drilling

USC based on field
visual observations

Appendix B

Groundwater Purging and Sampling Forms

**Troll 9000**

12/05/11

Low-Flow System**ISI Low-Flow Log****Project Information:**

Operator Name Michael Corbett
Company Name URS Corporation
Project Name Solutia WGK
Site Name Quarterly Groundwater Sampling - SUPP

Pump Information:

Pump Model/Type Geopump Peristaltic
Tubing Type LDPE
Tubing Diameter 0.19 [in]
Tubing Length 0 [ft]
Pump placement from TOC 0 [ft]

Well Information:

Well Id GWE-1D
Well diameter 1 [in]
Well total depth 129.8 [ft]
Depth to top of screen 119.8 [ft]
Screen length 120 [in]
Depth to Water 30.05 [ft]

Pumping information:

Final pumping rate 300 [mL/min]
Flowcell volume 600 [mL]
Calculated Sample Rate 120 [sec]
Sample rate 120 [sec]
Stabilized drawdown 0 [in]

Low-Flow Sampling Stabilization Summary

		Time	Temp [F]	pH [pH]	Cond [μ S/cm @25C]	Turb [NTU]	RDO [mg/L]	ORP [mV]
Stabilization Settings				+/-0.2	+/-0.1	+/-1	+/-0.2	+/-20
					+/-3 %	+/-10 %	+/-10 %	
Last 5 Readings		14:18:06	54.71	7.07	2883.05	12.22	0.24	150.30
		14:20:11	54.65	7.03	2934.38	6.43	0.17	149.48
		14:22:15	54.86	7.01	2931.55	4.50	0.13	148.16
		14:24:18	54.85	6.99	2951.75	3.47	0.11	146.48
		14:26:23	54.98	6.95	2960.36	1.91	0.09	143.96
Variance in last 3 readings		14:22:15	0.20	-0.02	-2.83	-1.92	-0.04	-1.33
		14:24:18	-0.01	-0.02	20.20	-1.03	-0.02	-1.67
		14:26:23	0.13	-0.04	8.60	-1.56	-0.02	-2.53

Notes:

**Troll 9000**

12/06/11

Low-Flow System**ISI Low-Flow Log****Project Information:**

Operator Name Mike Corbett
Company Name URS Corporation
Project Name Solutia WGK
Site Name Quarterly Groundwater Sampling - SUPP

Pump Information:

Pump Model/Type Geopump Peristaltic
Tubing Type LDPE
Tubing Diameter 0.19 [in]
Tubing Length 0 [ft]
Pump placement from TOC 0 [ft]

Well Information:

Well Id GWE-3D
Well diameter 1 [in]
Well total depth 117.23 [ft]
Depth to top of screen 107.23 [ft]
Screen length 120 [in]
Depth to Water 27.91 [ft]

Pumping information:

Final pumping rate 400 [mL/min]
Flowcell volume 600 [mL]
Calculated Sample Rate 90 [sec]
Sample rate 120 [sec]
Stabilized drawdown 0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond [μ S/cm @25C]	Turb [NTU]	RDO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-0.1	+/-1	+/-0.2	+/-20
				+/-3 %	+/-10 %	+/-10 %	
Last 5 Readings	8:54:28	57.92	6.91	2677.16	3.09	-0.02	187.43
	8:56:32	58.00	6.92	2700.04	6.10	-0.03	184.48
	8:58:36	57.92	6.95	2720.63	6.43	-0.05	181.82
	9:00:41	58.00	6.94	2734.18	4.81	-0.06	179.13
	9:02:44	58.08	6.92	2745.24	6.05	-0.06	176.78
Variance in last 3 readings	8:58:36	-0.08	0.04	20.59	0.32	-0.01	-2.65
	9:00:41	0.08	-0.02	13.55	-1.62	-0.01	-2.69
	9:02:44	0.08	-0.02	11.05	1.24	-0.01	-2.35

Notes:

**Troll 9000**

12/05/11

Low-Flow System**ISI Low-Flow Log****Project Information:**

Operator Name Mike Corbett
Company Name URS Corporation
Project Name Solutia WGK
Site Name Quarterly Groundwater Sampling - SUPP

Pump Information:

Pump Model/Type Proactive SS Monsoon
Tubing Type LDPE
Tubing Diameter 0.19 [in]
Tubing Length 0 [ft]
Pump placement from TOC 0 [ft]

Well Information:

Well Id GWE-5D
Well diameter 2 [in]
Well total depth 105.43 [ft]
Depth to top of screen 102.93 [ft]
Screen length 60 [in]
Depth to Water 18.26 [ft]

Pumping information:

Final pumping rate 400 [mL/min]
Flowcell volume 600 [mL]
Calculated Sample Rate 90 [sec]
Sample rate 120 [sec]
Stabilized drawdown 0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond [μ S/cm @25C]	Turb [NTU]	RDO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-0.1	+/-1	+/-0.2	+/-20
				+/-3 %	+/-10 %	+/-10 %	
Last 5 Readings	11:14:00	60.49	6.79	2279	7.50	-0.20	77.00
	11:18:00	60.48	6.79	2291	7.80	-0.20	76.00
	11:22:00	60.42	6.80	2357	5.70	-0.20	76.00
	11:26:00	60.47	6.80	2378	6.50	-0.21	75.00
	11:30:00	60.49	6.80	2385	6.90	-0.21	75.00
Variance in last 3 readings	11:22:00	-0.06	0.01	66.00	-2.10	0.00	0.00
	11:26:00	0.05	0.00	21.00	0.80	-0.01	-1.00
	11:30:00	0.02	0.00	7.00	0.40	0.00	0.00

Notes:

**Troll 9000**

12/06/11

Low-Flow System**ISI Low-Flow Log****Project Information:**

Operator Name Michael Corbett
Company Name URS Corporation
Project Name Solutia WGK
Site Name Quarterly Groundwater Sampling - SUPP

Pump Information:

Pump Model/Type Geopump Peristaltic
Tubing Type LDPE
Tubing Diameter 0.19 [in]
Tubing Length 0 [ft]
Pump placement from TOC 0 [ft]

Well Information:

Well Id GWE-2D
Well diameter 1 [in]
Well total depth 136.69 [ft]
Depth to top of screen 126.69 [ft]
Screen length 120 [in]
Depth to Water 29.93 [ft]

Pumping information:

Final pumping rate 150 [mL/min]
Flowcell volume 600 [mL]
Calculated Sample Rate 240 [sec]
Sample rate 240 [sec]
Stabilized drawdown 0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [F]	pH [pH]	Cond [μ S/cm @25C]	Turb [NTU]	RDO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.2	+/-0.1	+/-1	+/-0.2	+/-20
				+/-3 %	+/-10 %	+/-10 %	
Last 5 Readings	10:09:35	56.21	6.93	3600.22	6.04	0.74	187.56
	10:13:43	56.09	6.91	3631.37	6.92	0.56	182.77
	10:17:53	56.38	6.90	3661.84	11.96	0.42	178.45
	10:22:02	56.45	6.90	3665.09	10.76	0.34	174.72
	10:26:10	56.60	6.89	3677.92	6.10	0.28	171.35
Variance in last 3 readings	10:17:53	0.29	-0.01	30.47	5.04	-0.14	-4.32
	10:22:02	0.07	-0.01	3.25	-1.20	-0.08	-3.72
	10:26:10	0.15	0.00	12.83	-4.66	-0.06	-3.38

Notes:

Appendix C

Chains-of-Custody

Savannah

5102 LaRoche Avenue

Savannah, GA 31404

phone 912.354.7858 fax 912.352.0165

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Dave Palmer		Site Contact: Nathan McNurlen		Date: 12/5/11		COC No:	
URS Corporation		Tel/Fax: (314) 743-4154		Lab Contact: Lidya Gulizia		Carrier: FedEx		2 of 2 COCs	
1001 Highlands Plaza Drive West, Suite 300		Analysis Turnaround Time		Filtered Sample VOCs by 8260 Total Fe/Mn by 6010B Al/CO2 by 310.1 Chloride by 325.2/Sulfate by 375.4 Methane by RSK 175 Nitrate by 353.2 TOC by 415.1 Dissolved Fe/Mn by 6010B DOC by 415.1		Job No.		21562722-00001	
St. Louis, MO 63110		Calendar (C) or Work Days (W) <u>C</u>				SDG No.		21562703-00003-11	
(314) 429-0100 Phone		TAT if different from Below Standard							
(314) 429-0462 FAX		<input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day							
Project Name: 4Q11 Supplemental GW Sampling									
Site: Solutia WG Krummrich Facility									
PO#									
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.			Sample Specific Notes:
GWE-1D -1211		12/5/11	1435	G	Water	12	3	1	1
GWE-1D -F(0.2)-1211		↓	1435	G	Water	2	X		1
GWE-2D-1211-EB		↓	1500	G	W	3	3		
4Q11 SUPP Trip Blank # 2		12/5/11	---	---	Water	2	2		
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							2	1	4
Possible Hazard Identification							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>							<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
Special Instructions/QC Requirements & Comments: Level 4 Data Package									
Relinquished by: [Signature]		Company: URS		Date/Time: 12/5/11 1530		Received by: [Signature]		Company: TIA	
Relinquished by: [Signature]		Company: TIA		Date/Time: 12/5/11 1710		Received by: Beth A Daugherty		Company: TASAV	
Relinquished by: [Signature]		Company:		Date/Time:		Received by:		Date/Time:	

680-74941
Temp 2-8°C, 1-4°C

Savannah

5102 LaRoche Avenue

Savannah, GA 31404

phone 912.354.7858 fax 912.352.0165

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Dave Palmer		Site Contact: Nathan McNurlen		Date: 12/6/11		COC No:								
URS Corporation		Tel/Fax: (314) 743-4154		Lab Contact: Lidya Gulizia		Carrier: FedEx		1 of 1 COCs								
1001 Highlands Plaza Drive West, Suite 300		Analysis Turnaround Time						Job No.								
St. Louis, MO 63110		Calendar (C) or Work Days (W) C						21562722-00001								
(314) 429-0100 Phone		TAT if different from Below Standard						21562703-00003 MC								
(314) 429-0462 FAX		<input checked="" type="checkbox"/> 2 weeks						SDG No.								
Project Name: 4Q11 Supplemental GW Sampling		<input type="checkbox"/> 1 week														
Site: Solutia WG Krummrich Facility		<input type="checkbox"/> 2 days														
PO#		<input type="checkbox"/> 1 day														
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs by 8260	Total Fe/Mn by 6010B	Alk/CO2 by 310.1	Chloride by 325.2/Sulfate by 375.4	Methane by RSK 175	Nitrate by 353.2	TOC by 415.1	Dissolved Fe/Mn by 6010B	DOC by 415.1	Sample Specific Notes:
GWE-3D -1211	12/6/11	0910	G	Water	12		3	1	1	1	3	2	1			
GWE-3D -F(0.2)-1211		0910	G	Water	2	X								1	1	
GWE-3D-1211-AD		0910	G	W	3		3									
GWE-2D-1211		1035	G	W	12		3	1	1	1	3	2	1			
GWE-2D-F(0.2)-1211		1035	G	W	2	X								1	1	
GWE-2D-1211-MS		1035	G	W	3		3									
GWE-2D-1211-MSD		1035	G	W	3		3									
4Q11 SUPP Trip Blank # 3	12/6/11			Water	2		2									
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other						2 1 4 1 1 1 3,1 2 4 2										
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)										
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months										
Special Instructions/QC Requirements & Comments: Level 4 Data Package																
1.4 ² 680-74988																
Relinquished by: [Signature]		Company: URS		Date/Time: 12/6/11 1600		Received by: [Signature]		Company: [Signature]		Date/Time: 12-6-11 1608						
Relinquished by: [Signature]		Company: TA		Date/Time: 12/6/11 1720		Received by: [Signature]		Company: [Signature]		Date/Time: [Signature]						
Relinquished by: [Signature]		Company: [Signature]		Date/Time: [Signature]		Received by: [Signature]		Company: [Signature]		Date/Time: 12/7/11 1730						

Savannah

5102 LaRoche Avenue

Savannah, GA 31404

phone 912.354.7858 fax 912.352.0165

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Dave Palmer		Site Contact: Nathan McNurlen		Date: 12/5/11		COC No:											
URS Corporation		Tel/Fax: (314) 743-4154		Lab Contact: Lidya Gulizia		Carrier: FedEx		1 of 2 COCs											
1001 Highlands Plaza Drive West, Suite 300		Analysis Turnaround Time		Filtered Sample VOCs by 8260 Total Fe/Mn by 6010B Alk/CO2 by 310.1 Chloride by 325.2/Sulfate by 375.4 Methane by RSK 175 Nitrate by 353.2 TOC by 415.1 Dissolved Fe/Mn by 6010B DOC by 415.1				Job No.											
St. Louis, MO 63110		Calendar (C) or Work Days (W) <u>C</u>						21562722.00001											
(314) 429-0100 Phone		TAT if different from Below Standard						21562722.00000-ML											
(314) 429-0462 FAX		<input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day						SDG No.											
Project Name: 4Q11 Supplemental GW Sampling																			
Site: Solutia WG Krummrich Facility								Sample Specific Notes:											
PO#																			
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.													
GWE-5D -1211		12/5/11	1140	G	Water	12	3	1	1	1	3	2	1						
GWE-5D -F(0.2)-1211		↓	1140	G	Water	2	X						1	1					
GWE-5D-1211-MS		↓	1140	6	W	3	3												
GWE-5D-1211-MSD		↓	1140	6	W	3	3												
4Q11 SUPP Trip Blank # 1		12/5/11	—	—	Water	2	2												
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							2	1	4	1	1	1	3	1	2	4	2		
Possible Hazard Identification							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)												
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown							<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months												
Special Instructions/QC Requirements & Comments: Level 4 Data Package																			
Relinquished by: <i>[Signature]</i>		Company: URS		Date/Time: 12/5/11 1530		Received by: <i>[Signature]</i>		Company: TA		Date/Time: 12/5/11 1530		Temp 2-0°C, 1-4°C							
Relinquished by: <i>[Signature]</i>		Company: TA		Date/Time: 12/5/11 710		Received by: <i>[Signature]</i>		Company: TASAV		Date/Time: 12.06.11 1107									
Relinquished by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Date/Time: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Date/Time: <i>[Signature]</i>									

Appendix D
Quality Assurance Report

Q U A L I T Y A S S U R A N C E R E P O R T

Solutia Inc.
W.G. Krummrich Facility
Sauget, Illinois

Supplemental Groundwater Monitoring
Program
4th Quarter 2011 Data Report

Prepared for

Solutia Inc.
575 Maryville Centre Drive
St. Louis, MO 63141

January 2012



URS Corporation
1001 Highland Plaza Drive West, Suite 300
St. Louis, MO 63110
(314) 429-0100
Project # 21562703.00004

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1.0 INTRODUCTION

This Quality Assurance Report presents the findings of a review of analytical data for groundwater samples collected in August of 2011 from locations northwest of the Solutia W.G. Krummrich plant, as part of the 4th Quarter 2011 Supplemental Groundwater Monitoring Program. The samples were collected by URS Corporation personnel and analyzed by TestAmerica Laboratories located in Savannah, Georgia using USEPA methods, Standard methods and USEPA SW-846 methodologies. Groundwater samples were tested for volatile organic compounds (VOCs), dissolved gasses, total and dissolved metals, and general chemistry (MNAs).

One hundred percent of the data were subjected to a data quality review (Level III review). Please see **Appendix E** for data reviews. The Level III reviews were performed in order to confirm that the analytical data provided by TestAmerica Savannah were acceptable in quality for their intended use.

A total of 7 groundwater samples (four investigative samples, one field duplicate pair, one MS/MSD pair, and one equipment blank) were analyzed by TestAmerica. In addition, three trip blank sets were included in the coolers that contained groundwater samples for VOC analysis and were analyzed for VOCs by USEPA SW-846 Method 8260B. These samples were analyzed as Sample Delivery Groups (SDG) KPS069 and KPS070 utilizing the following USEPA SW-846 Methods:

- Method 8260B for VOCs (Benzene, Chlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene and 1,4-Dichlorobenzene)
- Method 6010B for total and dissolved iron and manganese

Samples were also analyzed for dissolved gasses and general chemistry parameters by the following methods:

- Method RSK-175 for Dissolved Gasses (Ethane, Ethylene, and Methane)
- USEPA Method 310.1 for Alkalinity and Free Carbon Dioxide
- USEPA Method 325.2 for Chloride
- USEPA Method 353.2 for Nitrogen, Nitrate-Nitrite
- USEPA Method 375.4 for Sulfate
- USEPA Method 415.1 for Total and Dissolved Organic Carbon

Samples were reviewed following procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA 2008) and USEPA Contract Laboratory Program National Functional Guidelines for Superfund Inorganic Data

Review, (USEPA 2010) and the Revised Long-Term Monitoring Program (LTMP) Work Plan (Solutia 2009).

The above guidelines provided the criteria to review the data. Additional quantitative criteria are given in the analytical methods. Qualifiers assigned by the data reviewer have been applied to the laboratory report. The qualifiers indicate data that did not meet acceptance criteria and corrective actions were not successful or not performed. The various qualifiers are explained in **Tables 1** and **2** below:

TABLE 1 – Laboratory Data Qualifiers

Lab Qualifier	Definition
U	Analyte was not detected at or above the reporting limit.
*	LCS, LCSD, MS, MSD, MD or surrogate exceeds the control limits.
E	Result exceeded the calibration range, secondary dilution required.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Spike recovery exceeds upper or lower control limits.
F	MS, MSD or RPD exceeds upper or lower control limits.
P	The difference between the results of the two GC columns is greater than 40%
H	Sample was prepped or analyzed beyond the specified holding time.
B	Compound was found in the blank and sample.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

TABLE 2 – URS Data Qualifiers

URS Qualifier	Definition
U	The analyte was analyzed for but was not detected.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Based on the criteria outlined, it is recommended that the results reported for these analyses are accepted for their intended use. Acceptable levels of accuracy, precision, and representativeness

(based on MS/MSD, LCS, surrogate compounds and field duplicate results) were achieved for this data set, except where noted in this report. In addition, analytical completeness, defined as the percentage of analytical results that are judged to be valid, including estimated detect/non-detect (J/UJ) data was 100 percent, which meets the completeness goal of 95 percent.

The data review included evaluation of the following criteria:

Organics

- Receipt condition and sample holding times
- Laboratory method blanks, field equipment blanks and trip blank samples
- Surrogate spike recoveries
- Laboratory control sample (LCS) recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) sample recoveries and relative percent difference (RPD) values
- Field duplicate results
- Results reported from dilutions
- Internal standard responses

Inorganics/General chemistry

- Receipt condition and sample holding times
- Laboratory method blank and field equipment blank samples
- LCS recoveries
- MS/MSD sample recoveries and matrix duplicate RPD values
- Field duplicate and laboratory duplicate results
- Results reported from dilutions

The following sections present the results of the data review.

2.0 RECEIPT CONDITION AND SAMPLE HOLDING TIMES

Sample holding time requirements for the analyses performed are presented in the methods and/or in the data review guidelines. Review of the sample collection, extraction and analysis dates involved comparing the chain-of-custody and the laboratory data summary forms for accuracy, consistency, and holding time compliance.

Upon review of the KPS069 data, the cooler receipt form indicated one of two coolers was received by the laboratory at 1.4°C which was outside the 4°C ± 2°C criteria. The samples were received in good condition; therefore, no qualification of data was required. Additionally, the cooler receipt form indicated MS/MSD analyses for sample GWE-5D-1211 were cancelled by URS; however the laboratory completed MS/MSD analyses for chloride, sulfate, and total organic carbon as sufficient sample volume was available for these analyses.

Upon review of the KPS070 data, the cooler receipt form indicated two of three coolers were received by the laboratory at 1.4°C which is outside the 4°C ± 2°C criteria. The samples were received in good condition; therefore, no qualification of data was required.

3.0 TRIP BLANKS, LABORATORY METHOD BLANK AND EQUIPMENT BLANK SAMPLES

Trip blank samples are used to assess VOC cross contamination of samples during shipment to the laboratory. Trip blanks were submitted with each cooler shipped containing samples for VOC analyses for a total of three trip blank sample sets. All associated samples were non-detect; therefore, no qualification of data was required.

Laboratory method blank samples evaluate the existence and magnitude of contamination problems resulting from laboratory activities. All laboratory method blank samples were analyzed at the method prescribed frequencies. Method blank samples were non-detect.

Equipment blank samples are used to assess the effectiveness of equipment decontamination procedures. Equipment blank samples were non-detect.

4.0 SURROGATE SPIKE RECOVERIES

Surrogate compounds are used to evaluate overall laboratory performance for sample preparation efficiency on a per sample basis. Samples analyzed for VOCs were spiked with surrogate compounds during sample preparation. USEPA National Functional Guidelines for Superfund Organic Methods Data Review state how data is qualified, if surrogate spike recoveries do not meet acceptance criteria.

Groundwater surrogate recoveries were within evaluation criteria; therefore, no qualification of data was required.

5.0 LABORATORY CONTROL SAMPLE RECOVERIES

Groundwater laboratory control samples (LCS) are analyzed with each analytical batch to assess the accuracy of the analytical process. LCS recoveries were within evaluation criteria. No qualification of data was required.

6.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) SAMPLES

MS/MSD samples are analyzed to assess the accuracy and precision of the analytical process on an analytical sample in a particular matrix. MS/MSD samples were required to be collected at a frequency of one per 20 investigative samples in accordance with the work plan. URS Corporation submitted one MS/MSD sample set for 7 investigative samples meeting the work plan frequency requirement.

No data qualifications were required if MS/MSD recoveries alone were outside evaluation criteria due to matrix interference or if sample concentrations were greater than four times (4X) the matrix spike concentrations.

Groundwater samples spiked and analyzed as MS/MSDs and their respective recoveries are discussed further in **Appendix D**. No qualification of data was required.

7.0 FIELD DUPLICATE RESULTS

Field duplicate results are used to evaluate precision of the entire data collection activity, including sampling, analysis and site heterogeneity. When results for both duplicate and sample values are greater than five times the practical quantitation limit (PQL), satisfactory precision is indicated by an RPD less than or equal to 25 percent for aqueous samples. Where one or both of the results of a field duplicate pair are reported at less than five times the PQL, satisfactory precision is indicated if the field duplicate results agree within 2 times the quantitation limit. Field duplicate results that do not meet these criteria may indicate unsatisfactory precision of the results.

One pair of field duplicate samples were collected for the five investigative groundwater samples. This satisfies the requirement in the work plan (one per 10 investigative samples or 10 percent). Groundwater field duplicate RPDs were within evaluation criteria; therefore, no qualification of data was required.

8.0 INTERNAL STANDARD RESPONSES

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during each analytical run. IS areas must be within -50 percent to +100 percent for VOCs.

The internal standards area responses for VOCs were verified for the data review. VOC IS responses met the criteria as described above for all groundwater samples. No qualification of data was required.

9.0 RESULTS REPORTED FROM DILUTIONS

VOC, chloride, and sulfate results for groundwater samples were diluted when high levels of target analytes were present. The diluted sample results for these analytes were reported for the associated samples.

Appendix E
Groundwater Analytical Results
(with Data Review Reports)

Supplemental Groundwater Monitoring Program 4Q 2011 Data Review

Laboratory SDG: KPS069

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 1/5/2012

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008. USEPA National Functional Guidelines for Superfund Inorganic Data Review 2010

Work Plan: Revised Long-Term Monitoring Program (LTMP) Work Plan (Solutia 2009)

Sample Identification	
GWE-5D-1211	GWE-5D-F(0.2)-1211
4Q11 SUPP Trip Blank #1	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated MS/MSD recoveries for sulfate in sample GWE-5D-1211 could not be evaluated because sample concentrations were greater than four times (4X) the matrix spike concentrations. Although not indicated in the laboratory case narrative, samples were diluted due to high levels of target analytes. Sample GWE-5D-1211 was diluted and re-analyzed to bring chlorobenzene within the calibration range of the instrument. Results for chlorobenzene were reported from the re-analysis runs and the remaining compounds were reported from the original analyses. These issues are discussed further in the appropriate sections below.

The cooler receipt form indicated one of two coolers was received by the laboratory at 1.4°C which was outside the 4°C ± 2°C temperature criteria. Samples were received in good condition; therefore, no qualification of data was required. Additionally, the cooler receipt form indicated MS/MSD analyses for sample GWE-5D-1211 were cancelled by URS; however the laboratory completed MS/MSD analyses for chloride, sulfate, and total organic carbon since sufficient sample volume was available for these analyses.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, although MS/MSD analysis was cancelled by URS, sample GWE-5D-1211 was spiked and analyzed for chloride, sulfate, and total organic carbon since sufficient sample volume was available to complete these analyses.

Were MS/MSD recoveries within evaluation criteria?

No, however MS/MSD recoveries for sulfate in sample GWE-5D-1211 could not be evaluated because sample concentrations were greater than four times (4X) the matrix spike concentrations. No qualification of data was required.

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
GWE-5D-1211	General chemistry	Sulfate	NA/NA	3	75-125/30

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

No

Supplemental Groundwater Monitoring Program

4Q 2011 Data Review

Laboratory SDG: KPS070

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 1/5/2011

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008. USEPA National Functional Guidelines for Superfund Inorganic Data Review 2010

Work Plan: Revised Long-Term Monitoring Program (LTMP) Work Plan (Solutia 2009)

Sample Identification	
GWE-1D-1211	GWE-1D-F(0.2)-1211
GWE-2D-1211-EB	4Q11 SUPP Trip Blank #2
GWE-3D-1211	GWE-3D-F(0.2)-1211
GWE-3D-1211-AD	GWE-2D-1211
GWE-2D-F(0.2)-1211	4Q11 SUPP Trip Blank #3

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Although not indicated in the laboratory case narrative, several samples were diluted due to high levels of target analytes. This issue is discussed further in the appropriate section below.

The cooler receipt form indicated two of three coolers were received by the laboratory at 1.4°C which is outside the 4°C ± 2°C criteria. The samples were received in good condition; therefore, no qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, sample GWE-2D-1211 was spiked and analyzed for VOCs.

Were MS/MSD recoveries within evaluation criteria?

Yes

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
GWE-3D-1211	GWE-3D-1211-AD

Were field duplicate sample RPDs within evaluation criteria?

Yes

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

No

SDG KPS069

Results of Sample from Monitoring Well:

GWE-5D

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-74941-1
TestAmerica Sample Delivery Group: KPS069
Client Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

For:
Solutia Inc.
575 Maryville Centre Dr.
Saint Louis, Missouri 63141

Attn: Mr. Jerry Rinaldi

Lidya Gulizia

Authorized for release by:
1/4/2012 5:28:11 PM

Lidya Gulizia
Project Manager II
lidya.gulizia@testamericainc.com

cc: Bob Billman

*Reviewed on
1/5/2012*

LINKS

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results through
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The
Expert**

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www.testamericainc.com

The test results in this report meet all 2003 NELAP and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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JAN 05 2012

Case Narrative

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Job ID: 680-74941-1

Laboratory: TestAmerica Savannah



Narrative

Job Narrative
680-74941-1

Receipt

All samples were received in good condition within temperature requirements.

The client submitted matrix spike and matrix spike duplicate (MS/MSD) samples for the project sample and cancelled these analyses following lab receipt, however, some analysis parameters were initiated prior to the cancellation where the MS/MSD were utilized for the batch QC. These data have been reported where available to satisfy laboratory batch QC requirements.

GC/MS VOA

No analytical or quality issues were noted.

GC VOA

Method(s) RSK-175: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 223685 were outside control limits for Methane. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) RSK-175: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 223650 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.


General Chemistry

Method(s) 375.4: The matrix spike(MS) recoveries for batch 223003 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Comments

No additional comments.

JAN 05 2012 

Sample Summary

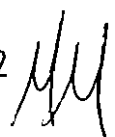
Client: Solutia Inc.

Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1

SDG: KPS069

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-74941-1	GWE-5D-1211	Water	12/05/11 11:40	12/06/11 11:07
680-74941-2	GWE-5D-F(0.2)-1211	Water	12/05/11 11:40	12/06/11 11:07
680-74941-3	4Q11 SUPP Trip Blank #1	Water	12/05/11 00:00	12/06/11 11:07

JAN 05 2012 

Method Summary

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
RSK-175	Dissolved Gases (GC)	RSK	TAL SAV
6010B	Metals (ICP)	SW846	TAL SAV
310.1	Alkalinity	MCAWW	TAL SAV
325.2	Chloride	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV
375.4	Sulfate	MCAWW	TAL SAV
415.1	TOC	MCAWW	TAL SAV
415.1	DOC	MCAWW	TAL SAV

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Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.


RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

JAN 05 2012



Definitions/Glossary

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
U	Indicates the analyte was analyzed for but not detected.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☆	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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TestAmerica Savannah

Detection Summary

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Client Sample ID: GWE-5D-1211

Lab Sample ID: 680-74941-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	53		1.0		ug/L	1		8260B	Total/NA
Chlorobenzene	2000	E	1.0		ug/L	1		8260B	Total/NA
1,2-Dichlorobenzene	17		1.0		ug/L	1		8260B	Total/NA
1,3-Dichlorobenzene	3.9		1.0		ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	110		1.0		ug/L	1		8260B	Total/NA
Benzene - DL	51	D	20		ug/L	20		8260B	Total/NA
Chlorobenzene - DL	1600	D	20		ug/L	20		8260B	Total/NA
1,4-Dichlorobenzene - DL	96	D	20		ug/L	20		8260B	Total/NA
Methane	58		0.58		ug/L	1		RSK-175	Total/NA
Iron	13		0.050		mg/L	1		6010B	Total Recovera
Manganese	0.39		0.010		mg/L	1		6010B	Total Recovera
Chloride	89		2.0		mg/L	2		325.2	Total/NA
Sulfate	280		50		mg/L	10		375.4	Total/NA
Total Organic Carbon	16		1.0		mg/L	1		415.1	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	400		5.0		mg/L	1		310.1	Total/NA
Carbon Dioxide, Free	33		5.0		mg/L	1		310.1	Total/NA

Client Sample ID: GWE-5D-F(0.2)-1211

Lab Sample ID: 680-74941-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	14		0.050		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.42		0.010		mg/L	1		6010B	Dissolved
Dissolved Organic Carbon	16		1.0		mg/L	1		415.1	Dissolved

Client Sample ID: 4Q11 SUPP Trip Blank #1

Lab Sample ID: 680-74941-3

No Detections

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Client Sample Results

Client: Solutia Inc.
Project/Site: WGG Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Client Sample ID: GWE-5D-1211

Lab Sample ID: 680-74941-1

Date Collected: 12/05/11 11:40

Matrix: Water

Date Received: 12/06/11 11:07

** Do not use this data. Use all other data.*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	53		1.0		ug/L			12/16/11 01:21	1
Chlorobenzene	2000	E	1.0		ug/L			12/16/11 04:21	1
1,2-Dichlorobenzene	17		1.0		ug/L			12/16/11 01:21	1
1,3-Dichlorobenzene	3.9		1.0		ug/L			12/16/11 01:21	1
1,4-Dichlorobenzene	110		1.0		ug/L			12/16/11 01:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		70 - 130		12/16/11 01:21	1
Dibromofluoromethane	84		70 - 130		12/16/11 01:21	1
Toluene-d8 (Surr)	110		70 - 130		12/16/11 01:21	1

** Use these results only. All other data was reported from the 1.0x dilution analysis.*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	51	D	20		ug/L			12/19/11 17:39	20
Chlorobenzene	1600	D	20		ug/L			12/19/11 17:39	20
1,2-Dichlorobenzene	20	U	20		ug/L			12/19/11 17:39	20
1,3-Dichlorobenzene	20	U	20		ug/L			12/19/11 17:39	20
1,4-Dichlorobenzene	96	D	20		ug/L			12/19/11 17:39	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		70 - 130		12/19/11 17:39	20
Dibromofluoromethane	85		70 - 130		12/19/11 17:39	20
Toluene-d8 (Surr)	111		70 - 130		12/19/11 17:39	20

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	1.1	U	1.1		ug/L			12/14/11 23:22	1
Ethylene	1.0	U	1.0		ug/L			12/14/11 23:22	1
Methane	58		0.58		ug/L			12/14/11 23:22	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	13		0.050		mg/L		12/07/11 09:59	12/08/11 05:10	1
Manganese	0.39		0.010		mg/L		12/07/11 09:59	12/08/11 05:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	89		2.0		mg/L			12/29/11 10:19	2
Nitrate as N	0.050	U	0.050		mg/L			12/06/11 15:49	1
Sulfate	280		50		mg/L			12/08/11 12:39	10
Total Organic Carbon	16		1.0		mg/L			12/27/11 14:14	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	400		5.0		mg/L			12/06/11 19:10	1
Carbon Dioxide, Free	33		5.0		mg/L			12/06/11 19:10	1

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Client Sample Results

Client: Solutia Inc.

Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1

SDG: KPS069

Client Sample ID: GWE-5D-F(0.2)-1211

Date Collected: 12/05/11 11:40

Date Received: 12/06/11 11:07

Lab Sample ID: 680-74941-2

Matrix: Water

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	14		0.050		mg/L		12/07/11 09:59	12/08/11 05:05	1
Manganese, Dissolved	0.42		0.010		mg/L		12/07/11 09:59	12/08/11 05:05	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	16		1.0		mg/L			12/15/11 18:27	1

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Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Client Sample ID: 4Q11 SUPP Trip Blank #1

Lab Sample ID: 680-74941-3

Date Collected: 12/05/11 00:00

Matrix: Water

Date Received: 12/06/11 11:07

Method: 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			12/15/11 21:58	1
Chlorobenzene	1.0	U	1.0		ug/L			12/15/11 21:58	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 21:58	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 21:58	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 21:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		70 - 130					12/15/11 21:58	1
Dibromofluoromethane	92		70 - 130					12/15/11 21:58	1
Toluene-d8 (Surr)	109		70 - 130					12/15/11 21:58	1

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TestAmerica Savannah

Surrogate Summary

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	BFB (70-130)	DBFM (70-130)	TOL (70-130)
680-74941-1	GWE-5D-1211	84	84	110
680-74941-1 - DL	GWE-5D-1211	95	85	111
680-74941-3	4Q11 SUPP Trip Blank #1	92	92	109
LCS 680-223910/4	Lab Control Sample	105	96	104
LCS 680-224057/4	Lab Control Sample	105	97	104
LCSD 680-223910/5	Lab Control Sample Dup	104	96	103
LCSD 680-224057/5	Lab Control Sample Dup	109	102	105
MB 680-223910/7	Method Blank	94	88	109
MB 680-224057/8	Method Blank	97	92	109

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

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TestAmerica Savannah

QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-223910/7

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 223910

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	1.0	U	1.0		ug/L			12/15/11 21:36	1
Chlorobenzene	1.0	U	1.0		ug/L			12/15/11 21:36	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 21:36	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 21:36	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 21:36	1
Surrogate	MB MB		Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
4-Bromofluorobenzene	94		70 - 130					12/15/11 21:36	1
Dibromofluoromethane	88		70 - 130					12/15/11 21:36	1
Toluene-d8 (Surr)	109		70 - 130					12/15/11 21:36	1

Lab Sample ID: LCS 680-223910/4

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 223910

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	50.0	52.3		ug/L		105	70 - 130
Chlorobenzene	50.0	51.0		ug/L		102	70 - 130
1,2-Dichlorobenzene	50.0	53.8		ug/L		108	70 - 130
1,3-Dichlorobenzene	50.0	52.7		ug/L		105	70 - 130
1,4-Dichlorobenzene	50.0	52.5		ug/L		105	70 - 130
Surrogate	LCS LCS		Limits				
	%Recovery	Qualifier					
4-Bromofluorobenzene	105		70 - 130				
Dibromofluoromethane	96		70 - 130				
Toluene-d8 (Surr)	104		70 - 130				

Lab Sample ID: LCSD 680-223910/5

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 223910

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
		Result	Qualifier						
Benzene	50.0	51.4		ug/L		103	70 - 130	2	30
Chlorobenzene	50.0	50.7		ug/L		101	70 - 130	1	30
1,2-Dichlorobenzene	50.0	53.0		ug/L		106	70 - 130	1	30
1,3-Dichlorobenzene	50.0	51.6		ug/L		103	70 - 130	2	30
1,4-Dichlorobenzene	50.0	51.8		ug/L		104	70 - 130	1	30
Surrogate	LCSD LCSD		Limits						
	%Recovery	Qualifier							
4-Bromofluorobenzene	104		70 - 130						
Dibromofluoromethane	96		70 - 130						
Toluene-d8 (Surr)	103		70 - 130						

Lab Sample ID: MB 680-224057/8

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 224057

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	1.0	U	1.0		ug/L			12/19/11 12:53	1

QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-224057/8
Matrix: Water
Analysis Batch: 224057

Client Sample ID: Method Blank
Prep Type: Total/NA

		MB	MB						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	1.0	U	1.0		ug/L			12/19/11 12:53	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			12/19/11 12:53	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			12/19/11 12:53	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			12/19/11 12:53	1
		MB	MB						
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		70 - 130					12/19/11 12:53	1
Dibromofluoromethane	92		70 - 130					12/19/11 12:53	1
Toluene-d8 (Surr)	109		70 - 130					12/19/11 12:53	1

Lab Sample ID: LCS 680-224057/4
Matrix: Water
Analysis Batch: 224057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

		Spike	LCS	LCS					
Analyte	Added	Result	Qualifier	Unit	D	%Rec	%Rec.	Limits	
Benzene	50.0	52.7		ug/L		105	70 - 130		
Chlorobenzene	50.0	49.1		ug/L		98	70 - 130		
1,2-Dichlorobenzene	50.0	51.2		ug/L		102	70 - 130		
1,3-Dichlorobenzene	50.0	50.3		ug/L		101	70 - 130		
1,4-Dichlorobenzene	50.0	50.2		ug/L		100	70 - 130		
		LCS	LCS						
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene	105		70 - 130						
Dibromofluoromethane	97		70 - 130						
Toluene-d8 (Surr)	104		70 - 130						

Lab Sample ID: LCSD 680-224057/5
Matrix: Water
Analysis Batch: 224057

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

		Spike	LCSD	LCSD					
Analyte	Added	Result	Qualifier	Unit	D	%Rec	%Rec.	Limits	RPD
Benzene	50.0	54.1		ug/L		108	70 - 130	3	30
Chlorobenzene	50.0	51.4		ug/L		103	70 - 130	5	30
1,2-Dichlorobenzene	50.0	52.6		ug/L		105	70 - 130	3	30
1,3-Dichlorobenzene	50.0	52.3		ug/L		105	70 - 130	4	30
1,4-Dichlorobenzene	50.0	51.4		ug/L		103	70 - 130	2	30
		LCSD	LCSD						
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene	109		70 - 130						
Dibromofluoromethane	102		70 - 130						
Toluene-d8 (Surr)	105		70 - 130						

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QC Sample Results

Client: Solutia Inc.
Project/Site: WKG Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 680-223685/1
Matrix: Water
Analysis Batch: 223685

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	1.1	U	1.1		ug/L			12/14/11 21:36	1
Ethylene	1.0	U	1.0		ug/L			12/14/11 21:36	1
Methane	0.58	U	0.58		ug/L			12/14/11 21:36	1

Lab Sample ID: LCS 680-223685/3
Matrix: Water
Analysis Batch: 223685

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane	282	263		ug/L		93	75 - 125
Ethylene	271	256		ug/L		94	75 - 125
Methane	153	147		ug/L		96	75 - 125



Lab Sample ID: LCSD 680-223685/4
Matrix: Water
Analysis Batch: 223685

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane	282	312		ug/L		111	75 - 125	17	30
Ethylene	271	297		ug/L		110	75 - 125	15	30
Methane	153	173		ug/L		113	75 - 125	16	30

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 680-222847/1-A
Matrix: Water
Analysis Batch: 222959

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 222847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.050	U	0.050		mg/L		12/07/11 09:59	12/08/11 03:09	1
Iron, Dissolved	0.050	U	0.050		mg/L		12/07/11 09:59	12/08/11 03:09	1
Manganese	0.010	U	0.010		mg/L		12/07/11 09:59	12/08/11 03:09	1
Manganese, Dissolved	0.010	U	0.010		mg/L		12/07/11 09:59	12/08/11 03:09	1

Lab Sample ID: LCS 680-222847/2-A
Matrix: Water
Analysis Batch: 222959

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 222847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1.00	0.929		mg/L		93	75 - 125
Iron, Dissolved	1.00	0.929		mg/L		93	75 - 125
Manganese	0.500	0.472		mg/L		94	75 - 125
Manganese, Dissolved	0.500	0.472		mg/L		94	75 - 125

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QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Method: 310.1 - Alkalinity

Lab Sample ID: MB 680-222831/5
Matrix: Water
Analysis Batch: 222831

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0		mg/L			12/06/11 18:02	1
Carbon Dioxide, Free	5.0	U	5.0		mg/L			12/06/11 18:02	1

Lab Sample ID: LCS 680-222831/6
Matrix: Water
Analysis Batch: 222831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	183	176		mg/L		96	80 - 120



Lab Sample ID: LCSD 680-222831/19
Matrix: Water
Analysis Batch: 222831

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity	183	163		mg/L		89	80 - 120	8	30

Method: 325.2 - Chloride

Lab Sample ID: MB 680-224981/35
Matrix: Water
Analysis Batch: 224981

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0		mg/L			12/29/11 11:05	1

Lab Sample ID: LCS 680-224981/2
Matrix: Water
Analysis Batch: 224981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.3		mg/L		103	85 - 115

Lab Sample ID: 680-74941-1 MS
Matrix: Water
Analysis Batch: 224981

Client Sample ID: GWE-5D-1211
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	89		50.0	134		mg/L		89	85 - 115

Lab Sample ID: 680-74941-1 MSD
Matrix: Water
Analysis Batch: 224981

Client Sample ID: GWE-5D-1211
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	89		50.0	134		mg/L		90	85 - 115	0	30

JAN 05 2012

TestAmerica Savannah

QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-222817/14

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 222817

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.050		mg/L			12/06/11 15:41	1

Lab Sample ID: LCS 680-222817/15

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 222817

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.497	0.503		mg/L		101	90 - 110
Nitrate Nitrite as N	0.998	1.00		mg/L		100	90 - 110
Nitrite as N	0.502	0.499		mg/L		99	90 - 110



Method: 375.4 - Sulfate

Lab Sample ID: MB 680-223003/1

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 223003

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Oil Fac
Sulfate	5.0	U	5.0		mg/L			12/08/11 12:37	1

Lab Sample ID: LCS 680-223003/2

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 223003

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.3		mg/L		96	75 - 125

Lab Sample ID: 680-74941-1 MS

Client Sample ID: GWE-5D-1211

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 223003

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	280		20.0	291	4	mg/L		45	75 - 125

Lab Sample ID: 680-74941-1 MSD

Client Sample ID: GWE-5D-1211

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 223003

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPO	RPD	Limit
Sulfate	280		20.0	300	4	mg/L		91	75 - 125	3		30

Method: 415.1 - DOC

Lab Sample ID: MB 680-224100/1

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Dissolved

Analysis Batch: 224100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.0		mg/L			12/15/11 18:27	1

QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Method: 415.1 - DOC (Continued)

Lab Sample ID: LCS 680-224100/2				Client Sample ID: Lab Control Sample			
Matrix: Water				Prep Type: Dissolved			
Analysis Batch: 224100							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Organic Carbon	20.0	19.4		mg/L		97	80 - 120

Method: 415.1 - TOC

Lab Sample ID: MB 680-224825/2							Client Sample ID: Method Blank		
Matrix: Water							Prep Type: Total/NA		
Analysis Batch: 224825									
	MB MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0		mg/L			12/27/11 13:30	1



Lab Sample ID: LCS 680-224825/4				Client Sample ID: Lab Control Sample			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 224825							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	20.0	19.6		mg/L		98	80 - 120

Lab Sample ID: 680-74941-1 MS							Client Sample ID: GWE-5D-1211			
Matrix: Water							Prep Type: Total/NA			
Analysis Batch: 224825										
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Total Organic Carbon	16		20.0	35.7		mg/L		98	80 - 120	

Lab Sample ID: 680-74941-1 MSD								Client Sample ID: GWE-5D-1211			
Matrix: Water								Prep Type: Total/NA			
Analysis Batch: 224825											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	16		20.0	35.8		mg/L		99	80 - 120	0	25

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TestAmerica Savannah

QC Association Summary

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

GC/MS VOA

Analysis Batch: 223910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-1	GWE-5D-1211	Total/NA	Water	8260B	
680-74941-3	4Q11 SUPP Trip Blank #1	Total/NA	Water	8260B	
LCS 680-223910/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-223910/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-223910/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 224057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-1 - DL	GWE-5D-1211	Total/NA	Water	8260B	
LCS 680-224057/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-224057/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-224057/8	Method Blank	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 223685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-1	GWE-5D-1211	Total/NA	Water	RSK-175	
LCS 680-223685/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-223685/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
MB 680-223685/1	Method Blank	Total/NA	Water	RSK-175	

Metals

Prep Batch: 222847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-1	GWE-5D-1211	Total Recoverable	Water	3005A	
680-74941-2	GWE-5D-F(0.2)-1211	Dissolved	Water	3005A	
LCS 680-222847/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 680-222847/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 222959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-1	GWE-5D-1211	Total Recoverable	Water	6010B	222847
680-74941-2	GWE-5D-F(0.2)-1211	Dissolved	Water	6010B	222847
LCS 680-222847/2-A	Lab Control Sample	Total Recoverable	Water	6010B	222847
MB 680-222847/1-A	Method Blank	Total Recoverable	Water	6010B	222847

General Chemistry

Analysis Batch: 222817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-1	GWE-5D-1211	Total/NA	Water	353.2	
LCS 680-222817/15	Lab Control Sample	Total/NA	Water	353.2	
MB 680-222817/14	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 222831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-1	GWE-5D-1211	Total/NA	Water	310.1	
LCS 680-222831/6	Lab Control Sample	Total/NA	Water	310.1	
LCSD 680-222831/19	Lab Control Sample Dup	Total/NA	Water	310.1	

QC Association Summary

Client: Solutia Inc.
Project/Site: W GK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

General Chemistry (Continued)

Analysis Batch: 222831 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-222831/5	Method Blank	Total/NA	Water	310.1	

Analysis Batch: 223003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-1	GWE-5D-1211	Total/NA	Water	375.4	
680-74941-1 MS	GWE-5D-1211	Total/NA	Water	375.4	
680-74941-1 MSD	GWE-5D-1211	Total/NA	Water	375.4	
LCS 680-223003/2	Lab Control Sample	Total/NA	Water	375.4	
MB 680-223003/1	Method Blank	Total/NA	Water	375.4	

Analysis Batch: 224100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-2	GWE-5D-F(0.2)-1211	Dissolved	Water	415.1	
LCS 680-224100/2	Lab Control Sample	Dissolved	Water	415.1	
MB 680-224100/1	Method Blank	Dissolved	Water	415.1	



Analysis Batch: 224825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-1	GWE-5D-1211	Total/NA	Water	415.1	
680-74941-1 MS	GWE-5D-1211	Total/NA	Water	415.1	
680-74941-1 MSD	GWE-5D-1211	Total/NA	Water	415.1	
LCS 680-224825/4	Lab Control Sample	Total/NA	Water	415.1	
MB 680-224825/2	Method Blank	Total/NA	Water	415.1	

Analysis Batch: 224981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-1	GWE-5D-1211	Total/NA	Water	325.2	
680-74941-1 MS	GWE-5D-1211	Total/NA	Water	325.2	
680-74941-1 MSD	GWE-5D-1211	Total/NA	Water	325.2	
LCS 680-224981/2	Lab Control Sample	Total/NA	Water	325.2	
MB 680-224981/35	Method Blank	Total/NA	Water	325.2	

JAN 05 2012

TestAmerica Savannah

Lab Chronicle

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Client Sample ID: GWE-5D-1211

Date Collected: 12/05/11 11:40

Date Received: 12/06/11 11:07

Lab Sample ID: 680-74941-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	223910	12/16/11 01:21	WJC	TAL SAV
Total/NA	Analysis	8260B	DL	20	224057	12/19/11 17:39	RB	TAL SAV
Total/NA	Analysis	RSK-175		1	223685	12/14/11 23:22	SMC	TAL SAV
Total Recoverable	Prep	3005A			222847	12/07/11 09:59	RAM	TAL SAV
Total Recoverable	Analysis	8010B		1	222959	12/08/11 05:10	BCB	TAL SAV
Total/NA	Analysis	353.2		1	222817	12/06/11 15:49	JNC	TAL SAV
Total/NA	Analysis	310.1		1	222831	12/06/11 19:10	TH	TAL SAV
Total/NA	Analysis	375.4		10	223003	12/08/11 12:39	JR	TAL SAV
Total/NA	Analysis	415.1		1	224825	12/27/11 14:14	JR	TAL SAV
Total/NA	Analysis	325.2		2	224981	12/29/11 10:19	JR	TAL SAV

Client Sample ID: GWE-5D-F(0.2)-1211

Date Collected: 12/05/11 11:40

Date Received: 12/06/11 11:07

Lab Sample ID: 680-74941-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			222847	12/07/11 09:59	RAM	TAL SAV
Dissolved	Analysis	6010B		1	222959	12/08/11 05:05	BCB	TAL SAV
Dissolved	Analysis	415.1		1	224100	12/15/11 18:27	JR	TAL SAV

Client Sample ID: 4Q11 SUPP Trip Blank #1

Date Collected: 12/05/11 00:00

Date Received: 12/06/11 11:07

Lab Sample ID: 680-74941-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	223910	12/15/11 21:58	WJC	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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JAN 05 2012

TestAmerica Savannah

Savannah

5102 LaRoche Avenue

Savannah, GA 31404

phone 912.354.7858 fax 912.352.0165

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Dave Palmer		Site Contact: Nathan McNurken		Date: 12/5/11	
URS Corporation		Toll/Fax: (314) 743-4154		Lab Contact: Lidya Gubizia		Carrier: FedEx	
1001 Highlands Plaza Drive West, Suite 300		Analysis Turnaround Time		COC No: 1 of 2 COCs		Job No: 21562722.00001	
St. Louis, MO 63110		Calendar (C) or Work Days (W)		SDG No: 21562722.00000-141			
(314) 429-0100		2 weeks					
(314) 429-0462		1 week					
Project Name: 4Q11 Supplemental GW Sampling		2 days					
Site: Solutia WG Krummrich Facility		1 day					
PO#							
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:	
GWE-5D-1211	12/5/11	1140	G	Water	12		
GWE-5D-1211-MS	12/5/11	1140	G	Water	2		
GWE-5D-1211-MS	12/5/11	1140	G	Water	3		
GWE-5D-1211-MSD	12/5/11	1140	G	Water	3		
4Q11 SUPP Trip Blank # 1	12/5/11			Water	2		
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other							
Possible Hazard Identification							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>							
Special Instructions/QC Requirements & Comments: Level 4 Data Package							
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:	Temp 20°C, 1.4°C	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:	12/5/11 1530	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:	12/5/11 1530	
680-74941							

Login Sample Receipt Checklist

Client: Solutia Inc.

Job Number: 680-74941-1

SDG Number: KPS069

Login Number: 74941

List Source: TestAmerica Savannah

List Number: 1

Creator: Daughtry, Beth

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0 and 1.4 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	5D MS/MSD cancelled by client; will submit on alt location.
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Certification Summary

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011 (GWE-5D)

TestAmerica Job ID: 680-74941-1
SDG: KPS069

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Savannah	A2LA	DoD ELAP		0399-01
TestAmerica Savannah	A2LA	ISO/IEC 17025		399.01
TestAmerica Savannah	Alabama	State Program	4	41450
TestAmerica Savannah	Arkansas	Arkansas DOH	6	N/A
TestAmerica Savannah	Arkansas	State Program	6	88-0692
TestAmerica Savannah	California	NELAC	9	3217CA
TestAmerica Savannah	Colorado	State Program	8	N/A
TestAmerica Savannah	Connecticut	State Program	1	PH-0161
TestAmerica Savannah	Delaware	State Program	3	N/A
TestAmerica Savannah	Florida	NELAC	4	E87052
TestAmerica Savannah	Georgia	Georgia EPO	4	N/A
TestAmerica Savannah	Georgia	State Program	4	803
TestAmerica Savannah	Guam	State Program	9	09-005r
TestAmerica Savannah	Hawaii	State Program	9	N/A
TestAmerica Savannah	Illinois	NELAC	5	200022
TestAmerica Savannah	Indiana	State Program	5	N/A
TestAmerica Savannah	Iowa	State Program	7	353
TestAmerica Savannah	Kentucky	Kentucky UST	4	18
TestAmerica Savannah	Kentucky	State Program	4	90084
TestAmerica Savannah	Louisiana	NELAC	6	30690
TestAmerica Savannah	Louisiana	NELAC	6	LA100015
TestAmerica Savannah	Maine	State Program	1	GA00006
TestAmerica Savannah	Maryland	State Program	3	250
TestAmerica Savannah	Massachusetts	State Program	1	M-GA006
TestAmerica Savannah	Michigan	State Program	5	9925
TestAmerica Savannah	Mississippi	State Program	4	N/A
TestAmerica Savannah	Montana	State Program	8	CERT0081
TestAmerica Savannah	Nebraska	State Program	7	TestAmerica-Savannah
TestAmerica Savannah	New Jersey	NELAC	2	GA769
TestAmerica Savannah	New Mexico	State Program	6	N/A
TestAmerica Savannah	New York	NELAC	2	10842
TestAmerica Savannah	North Carolina	North Carolina DENR	4	269
TestAmerica Savannah	North Carolina	North Carolina PHL	4	13701
TestAmerica Savannah	Oklahoma	State Program	6	9984
TestAmerica Savannah	Pennsylvania	NELAC	3	68-00474
TestAmerica Savannah	Puerto Rico	State Program	2	GA00006
TestAmerica Savannah	Rhode Island	State Program	1	LAO00244
TestAmerica Savannah	South Carolina	State Program	4	98001
TestAmerica Savannah	Tennessee	State Program	4	TN02961
TestAmerica Savannah	Texas	NELAC	6	T104704185-08-TX
TestAmerica Savannah	USDA	USDA		SAV 3-04
TestAmerica Savannah	Vermont	State Program	1	87052
TestAmerica Savannah	Virginia	NELAC	3	460161
TestAmerica Savannah	Virginia	State Program	3	302
TestAmerica Savannah	Washington	State Program	10	C1794
TestAmerica Savannah	West Virginia	West Virginia DEP	3	94
TestAmerica Savannah	West Virginia	West Virginia DHHR (DW)	3	9950C
TestAmerica Savannah	Wisconsin	State Program	5	999819810
TestAmerica Savannah	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

JAN 05 2012

TestAmerica Savannah

SDG KPS070

Results of Samples from Piezometers:

GWE-1D

GWE-2D

GWE-3D

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-74941-2
TestAmerica Sample Delivery Group: KPS070
Client Project/Site: WGK Supp GW 4Q11 - DEC 2011

For:
Solutia Inc.
575 Maryville Centre Dr.
Saint Louis, Missouri 63141

Attn: Mr. Jerry Rinaldi

Lidya Gulizia

Authorized for release by:
1/4/2012 5:37:05 PM

Lidya Gulizia
Project Manager II
lidya.gulizia@testamericainc.com

cc: Bob Billman

*Reviewed on
1/5/2012*

LINKS

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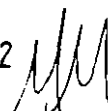
This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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JAN 05 2012 

Case Narrative

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Job ID: 680-74941-2

Laboratory: TestAmerica Savannah

Narrative

Job Narrative 680-74941-2

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

No analytical or quality issues were noted.

GC VOA

Method(s) RSK-175: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 223685 were outside control limits for Methane. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) RSK-175: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 223650 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.

General Chemistry

Method(s) 375.4: The matrix spike(MS) recoveries for batch 223003 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Comments

No additional comments.

US EPA ARCHIVE DOCUMENT

JAN 05 2012

TestAmerica Savannah

Sample Summary

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-74941-4	GWE-1D-1211	Water	12/05/11 14:35	12/06/11 11:07
680-74941-5	GWE-1D-F(0.2)-1211	Water	12/05/11 14:35	12/06/11 11:07
680-74941-6	GWE-2D-1211-EB	Water	12/05/11 15:00	12/06/11 11:07
680-74941-7	4Q11 SUPP Trip Blank #2	Water	12/05/11 00:00	12/06/11 11:07
680-74988-1	GWE-3D-1211	Water	12/06/11 09:10	12/07/11 12:30
680-74988-2	GWE-3D-F(0.2)-1211	Water	12/06/11 09:10	12/07/11 12:30
680-74988-3	GWE-3D-1211-AD	Water	12/06/11 09:10	12/07/11 12:30
680-74988-4	GWE-2D-1211	Water	12/06/11 10:35	12/07/11 12:30
680-74988-5	GWE-2D-F(0.2)-1211	Water	12/06/11 10:35	12/07/11 12:30
680-74988-6	4Q11 SUPP Trip Blank #3	Water	12/08/11 00:00	12/07/11 12:30

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JAN 05 2012

TestAmerica Savannah

Method Summary

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
RSK-175	Dissolved Gases (GC)	RSK	TAL SAV
6010B	Metals (ICP)	SW846	TAL SAV
310.1	Alkalinity	MCAWW	TAL SAV
325.2	Chloride	MCAWW	TAL SAV
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SAV
375.4	Sulfate	MCAWW	TAL SAV
415.1	TOC	MCAWW	TAL SAV
415.1	DDC	MCAWW	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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JAN 05 2012
TestAmerica Savannah

Definitions/Glossary

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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JAN 05 2012

TestAmerica Savannah

Detection Summary

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: GWE-1D-1211

Lab Sample ID: 680-74941-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	11		1.0		ug/L	1		8260B	Total/NA
Chlorobenzene	11		1.0		ug/L	1		8260B	Total/NA
1,2-Dichlorobenzene	1.6		1.0		ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	4.0		1.0		ug/L	1		8260B	Total/NA
Methane	5.6		0.58		ug/L	1		RSK-175	Total/NA
Iron	19		0.050		mg/L	1		6010B	Total Recovera
Manganese	0.53		0.010		mg/L	1		6010B	Total Recovera
Chloride	70		1.0		mg/L	1		325.2	Total/NA
Nitrate as N	0.064		0.050		mg/L	1		353.2	Total/NA
Sulfate	300		50		mg/L	10		375.4	Total/NA
Total Organic Carbon	2.5		1.0		mg/L	1		415.1	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	460		5.0		mg/L	1		310.1	Total/NA
Carbon Dioxide, Free	28		5.0		mg/L	1		310.1	Total/NA

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Client Sample ID: GWE-1D-F(0.2)-1211

Lab Sample ID: 680-74941-5

Analyte	Result	Qualifier	RL	MDL	Unit	Oil Fac	D	Method	Prep Type
Iron, Dissolved	18		0.050		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.52		0.010		mg/L	1		6010B	Dissolved
Dissolved Organic Carbon	2.5		1.0		mg/L	1		415.1	Dissolved

Client Sample ID: GWE-2D-1211-EB

Lab Sample ID: 680-74941-6

No Detections

Client Sample ID: 4Q11 SUPP Trip Blank #2

Lab Sample ID: 680-74941-7

No Detections

Client Sample ID: GWE-3D-1211

Lab Sample ID: 680-74988-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	11		10		ug/L	10		8260B	Total/NA
Chlorobenzene	1200		10		ug/L	10		8260B	Total/NA
1,2-Dichlorobenzene	11		10		ug/L	10		8260B	Total/NA
1,4-Dichlorobenzene	84		10		ug/L	10		8260B	Total/NA
Methane	16		0.58		ug/L	1		RSK-175	Total/NA
Iron	12		0.050		mg/L	1		6010B	Total Recovera
Manganese	0.36		0.010		mg/L	1		6010B	Total Recovera
Chloride	59		1.0		mg/L	1		325.2	Total/NA
Sulfate	170		25		mg/L	5		375.4	Total/NA
Total Organic Carbon	2.8		1.0		mg/L	1		415.1	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Oil Fac	D	Method	Prep Type
Alkalinity	410		5.0		mg/L	1		310.1	Total/NA
Carbon Dioxide, Free	21		5.0		mg/L	1		310.1	Total/NA

Client Sample ID: GWE-3D-F(0.2)-1211

Lab Sample ID: 680-74988-2

Analyte	Result	Qualifier	RL	MOL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	13		0.050		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.38		0.010		mg/L	1		6010B	Dissolved
Dissolved Organic Carbon	3.1		1.0		mg/L	1		415.1	Dissolved

Detection Summary

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: GWE-3D-1211-AD

Lab Sample ID: 680-74988-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	11		10		ug/L	10		8260B	Total/NA
Chlorobenzene	1100		10		ug/L	10		8260B	Total/NA
1,2-Dichlorobenzene	11		10		ug/L	10		8260B	Total/NA
1,4-Dichlorobenzene	65		10		ug/L	10		8260B	Total/NA

Client Sample ID: GWE-2D-1211

Lab Sample ID: 680-74988-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	18		1.0		ug/L	1		8280B	Total/NA
Chlorobenzene	19		1.0		ug/L	1		8260B	Total/NA
1,2-Dichlorobenzene	1.2		1.0		ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	2.9		1.0		ug/L	1		8260B	Total/NA
Methane	1.1		0.58		ug/L	1		RSK-175	Total/NA
Iron	18		0.050		mg/L	1		6010B	Total Recovera
Manganese	0.41		0.010		mg/L	1		6010B	Total Recovera
Chloride	95		1.0		mg/L	1		325.2	Total/NA
Sulfate	310		50		mg/L	10		375.4	Total/NA
Total Organic Carbon	2.8		1.0		mg/L	1		415.1	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	500		5.0		mg/L	1		310.1	Total/NA
Carbon Dioxide, Free	25		5.0		mg/L	1		310.1	Total/NA

Client Sample ID: GWE-2D-F(0.2)-1211

Lab Sample ID: 680-74988-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	17		0.050		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.39		0.010		mg/L	1		6010B	Dissolved
Dissolved Organic Carbon	3.0		1.0		mg/L	1		415.1	Dissolved

Client Sample ID: 4Q11 SUPP Trip Blank #3

Lab Sample ID: 680-74988-6

No Detections



Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: GWE-1D-1211

Lab Sample ID: 680-74941-4

Date Collected: 12/05/11 14:35

Matrix: Water

Date Received: 12/06/11 11:07

Method: 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	11		1.0		ug/L			12/16/11 00:58	1
Chlorobenzene	11		1.0		ug/L			12/16/11 00:58	1
1,2-Dichlorobenzene	1.6		1.0		ug/L			12/16/11 00:58	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			12/16/11 00:58	1
1,4-Dichlorobenzene	4.0		1.0		ug/L			12/16/11 00:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		70 - 130					12/16/11 00:58	1
Dibromofluoromethane	87		70 - 130					12/16/11 00:58	1
Toluene-d8 (Surr)	112		70 - 130					12/16/11 00:58	1

Method: RSK-175 - Dissolved Gases (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	1.1	U	1.1		ug/L			12/14/11 23:35	1
Ethylene	1.0	U	1.0		ug/L			12/14/11 23:35	1
Methane	5.6		0.58		ug/L			12/14/11 23:35	1

Method: 6010B - Metals (ICP) - Total Recoverable									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	19		0.050		mg/L		12/07/11 09:59	12/08/11 05:15	1
Manganese	0.53		0.010		mg/L		12/07/11 09:59	12/08/11 05:15	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70		1.0		mg/L			12/29/11 10:04	1
Nitrate as N	0.064		0.050		mg/L			12/06/11 15:51	1
Sulfate	300		50		mg/L			12/08/11 12:41	10
Total Organic Carbon	2.5		1.0		mg/L			12/27/11 14:54	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	460		5.0		mg/L			12/06/11 19:20	1
Carbon Dioxide, Free	28		5.0		mg/L			12/06/11 19:20	1

JAN 05 2012

TestAmerica Savannah

Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: GWE-1D-F(0.2)-1211

Lab Sample ID: 680-74941-5

Date Collected: 12/05/11 14:35

Matrix: Water

Date Received: 12/06/11 11:07

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	18		0.050		mg/L		12/07/11 09:59	12/08/11 05:00	1
Manganese, Dissolved	0.52		0.010		mg/L		12/07/11 09:59	12/08/11 05:00	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	2.5		1.0		mg/L			12/15/11 18:27	1

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TestAmerica Savannah

Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: GWE-2D-1211-EB

Lab Sample ID: 680-74941-6

Date Collected: 12/05/11 15:00

Matrix: Water

Date Received: 12/06/11 11:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			12/15/11 23:51	1
Chlorobenzene	1.0	U	1.0		ug/L			12/15/11 23:51	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 23:51	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 23:51	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 23:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		70 - 130					12/15/11 23:51	1
Dibromofluoromethane	90		70 - 130					12/15/11 23:51	1
Toluene-d8 (Surr)	112		70 - 130					12/15/11 23:51	1

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JAN 05 2012

TestAmerica Savannah

Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: 4Q11 SUPP Trip Blank #2

Lab Sample ID: 680-74941-7

Date Collected: 12/05/11 00:00

Matrix: Water

Date Received: 12/06/11 11:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			12/15/11 22:21	1
Chlorobenzene	1.0	U	1.0		ug/L			12/15/11 22:21	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 22:21	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 22:21	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 22:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		70 - 130		12/15/11 22:21	1
Dibromofluoromethane	89		70 - 130		12/15/11 22:21	1
Toluene-d8 (Surr)	111		70 - 130		12/15/11 22:21	1

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JAN 05 2012

TestAmerica Savannah

Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: GWE-3D-1211

Lab Sample ID: 680-74988-1

Date Collected: 12/06/11 09:10

Matrix: Water

Date Received: 12/07/11 12:30

Method: 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	11		10		ug/L			12/20/11 13:16	10
Chlorobenzene	1200		10		ug/L			12/20/11 13:16	10
1,2-Dichlorobenzene	11		10		ug/L			12/20/11 13:16	10
1,3-Dichlorobenzene	10	U	10		ug/L			12/20/11 13:16	10
1,4-Dichlorobenzene	64		10		ug/L			12/20/11 13:16	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		70 - 130					12/20/11 13:16	10
Dibromofluoromethane	87		70 - 130					12/20/11 13:16	10
Toluene-d8 (Surr)	107		70 - 130					12/20/11 13:16	10

Method: RSK-175 - Dissolved Gases (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	1.1	U	1.1		ug/L			12/14/11 23:47	1
Ethylene	1.0	U	1.0		ug/L			12/14/11 23:47	1
Methane	16		0.58		ug/L			12/14/11 23:47	1

Method: 6010B - Metals (ICP) - Total Recoverable									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	12		0.050		mg/L		12/12/11 08:20	12/14/11 04:29	1
Manganese	0.36		0.010		mg/L		12/12/11 08:20	12/14/11 04:29	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	59		1.0		mg/L			12/29/11 10:04	1
Nitrate as N	0.050	U	0.050		mg/L			12/07/11 16:55	1
Sulfate	170		25		mg/L			12/28/11 15:50	5
Total Organic Carbon	2.8		1.0		mg/L			12/27/11 15:08	1
Analyte	Result	Qualifier	RL	RL	Unit	O	Prepared	Analyzed	Dil Fac
Alkalinity	410		5.0		mg/L			12/09/11 19:21	1
Carbon Dioxide, Free	21		5.0		mg/L			12/09/11 19:21	1

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TestAmerica Savannah

Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: GWE-3D-F(0.2)-1211

Lab Sample ID: 680-74988-2

Date Collected: 12/06/11 09:10

Matrix: Water

Date Received: 12/07/11 12:30

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	13		0.050		mg/L		12/12/11 08:20	12/14/11 04:34	1
Manganese, Dissolved	0.38		0.010		mg/L		12/12/11 08:20	12/14/11 04:34	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	3.1		1.0		mg/L			12/27/11 13:20	1

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TestAmerica Savannah

Client Sample Results

Client: Solutia Inc.
Project/Site: W GK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: GWE-3D-1211-AD

Lab Sample ID: 680-74988-3

Date Collected: 12/06/11 09:10

Matrix: Water

Date Received: 12/07/11 12:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	11		10		ug/L			12/20/11 13:45	10
Chlorobenzene	1100		10		ug/L			12/20/11 13:45	10
1,2-Dichlorobenzene	11		10		ug/L			12/20/11 13:45	10
1,3-Dichlorobenzene	10	U	10		ug/L			12/20/11 13:45	10
1,4-Dichlorobenzene	65		10		ug/L			12/20/11 13:45	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		70 - 130					12/20/11 13:45	10
Dibromofluoromethane	92		70 - 130					12/20/11 13:45	10
Toluene-d8 (Surr)	106		70 - 130					12/20/11 13:45	10

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TestAmerica Savannah

Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: GWE-2D-1211

Lab Sample ID: 680-74988-4

Date Collected: 12/06/11 10:35

Matrix: Water

Date Received: 12/07/11 12:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	18		1.0		ug/L			12/20/11 16:09	1
Chlorobenzene	19		1.0		ug/L			12/20/11 16:09	1
1,2-Dichlorobenzene	1.2		1.0		ug/L			12/20/11 16:09	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			12/20/11 16:09	1
1,4-Dichlorobenzene	2.9		1.0		ug/L			12/20/11 16:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		70 - 130					12/20/11 16:09	1
Dibromofluoromethane	88		70 - 130					12/20/11 16:09	1
Toluene-d8 (Surr)	112		70 - 130					12/20/11 16:09	1

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Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	1.1	U	1.1		ug/L			12/15/11 00:00	1
Ethylene	1.0	U	1.0		ug/L			12/15/11 00:00	1
Methane	1.1		0.58		ug/L			12/15/11 00:00	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	18		0.050		mg/L		12/12/11 08:20	12/14/11 04:39	1
Manganese	0.41		0.010		mg/L		12/12/11 08:20	12/14/11 04:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	95		1.0		mg/L			12/29/11 10:04	1
Nitrate as N	0.050	U	0.050		mg/L			12/07/11 16:57	1
Sulfate	310		50		mg/L			12/26/11 15:54	10
Total Organic Carbon	2.8		1.0		mg/L			12/27/11 15:22	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	500		5.0		mg/L			12/09/11 19:31	1
Carbon Dioxide, Free	25		5.0		mg/L			12/09/11 19:31	1

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TestAmerica Savannah

Client Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: GWE-2D-F(0.2)-1211

Lab Sample ID: 680-74988-5

Date Collected: 12/06/11 10:35

Matrix: Water

Date Received: 12/07/11 12:30

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	17		0.050		mg/L		12/12/11 08:20	12/14/11 04:54	1
Manganese, Dissolved	0.39		0.010		mg/L		12/12/11 08:20	12/14/11 04:54	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	3.0		1.0		mg/L			12/27/11 13:20	1

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TestAmerica Savannah

Client Sample Results

Client: Solutia Inc.
Project/Site: W GK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: 4Q11 SUPP Trip Blank #3

Lab Sample ID: 680-74988-6

Date Collected: 12/06/11 00:00

Matrix: Water

Date Received: 12/07/11 12:30

Method: 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			12/12/11 22:53	1
Chlorobenzene	1.0	U	1.0		ug/L			12/12/11 22:53	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			12/12/11 22:53	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			12/12/11 22:53	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			12/12/11 22:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		70 - 130					12/12/11 22:53	1
Dibromofluoromethane	99		70 - 130					12/12/11 22:53	1
Toluene-d8 (Surr)	103		70 - 130					12/12/11 22:53	1

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TestAmerica Savannah

Surrogate Summary

Client: Solutia Inc.
Project/Site: W GK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (70-130)	DBFM (70-130)	TOL (70-130)
680-74941-4	GWE-1D-1211	96	87	112
680-74941-6	GWE-2D-1211-EB	92	90	112
680-74941-7	4Q11 SUPP Trip Blank #2	93	89	111
880-74988-1	GWE-3D-1211	98	87	107
660-74988-3	GWE-3D-1211-AD	100	92	106
680-74988-4	GWE-2D-1211	95	88	112
680-74988-4 MS	GWE-2D-1211	101	95	103
680-74988-4 MSD	GWE-2D-1211	99	93	104
680-74988-6	4Q11 SUPP Trip Blank #3	102	99	103
LCS 680-223436/3	Lab Control Sample	96	101	96
LCS 680-223910/4	Lab Control Sample	105	96	104
LCS 680-224198/4	Lab Control Sample	102	96	101
LCSD 680-223436/4	Lab Control Sample Dup	102	105	99
LCSD 680-223910/5	Lab Control Sample Dup	104	96	103
LCSD 680-224198/5	Lab Control Sample Dup	105	99	104
MB 680-223436/6	Method Blank	102	101	102
MB 680-223910/7	Method Blank	94	88	109
MB 680-224198/7	Method Blank	100	93	106

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surrogate)

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QC Sample Results

Client: Solutia Inc.
Project/Site: W GK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-223436/6
Matrix: Water
Analysis Batch: 223436

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			12/12/11 19:29	1
Chlorobenzene	1.0	U	1.0		ug/L			12/12/11 19:29	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			12/12/11 19:29	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			12/12/11 19:29	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			12/12/11 19:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		70 - 130		12/12/11 19:29	1
Dibromofluoromethane	101		70 - 130		12/12/11 19:29	1
Toluene-d8 (Surr)	102		70 - 130		12/12/11 19:29	1

Lab Sample ID: LCS 680-223436/3
Matrix: Water
Analysis Batch: 223436

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	48.9		ug/L		98	70 - 130
Chlorobenzene	50.0	49.5		ug/L		99	70 - 130
1,2-Dichlorobenzene	50.0	49.4		ug/L		99	70 - 130
1,3-Dichlorobenzene	50.0	49.2		ug/L		98	70 - 130
1,4-Dichlorobenzene	50.0	48.8		ug/L		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	96		70 - 130
Dibromofluoromethane	101		70 - 130
Toluene-d8 (Surr)	96		70 - 130

Lab Sample ID: LCSD 680-223436/4
Matrix: Water
Analysis Batch: 223436

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	50.9		ug/L		102	70 - 130	4	30
Chlorobenzene	50.0	51.7		ug/L		103	70 - 130	4	30
1,2-Dichlorobenzene	50.0	51.5		ug/L		103	70 - 130	4	30
1,3-Dichlorobenzene	50.0	51.6		ug/L		103	70 - 130	5	30
1,4-Dichlorobenzene	50.0	51.0		ug/L		102	70 - 130	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	102		70 - 130
Dibromofluoromethane	105		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: MB 680-223910/7
Matrix: Water
Analysis Batch: 223910

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			12/15/11 21:36	1

QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-223910/7

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 223910

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	1.0	U	1.0		ug/L			12/15/11 21:36	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 21:36	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 21:36	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			12/15/11 21:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		70 - 130		12/15/11 21:36	1
Dibromofluoromethane	88		70 - 130		12/15/11 21:36	1
Toluene-d8 (Surr)	109		70 - 130		12/15/11 21:36	1

Lab Sample ID: LCS 680-223910/4

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 223910

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	52.3		ug/L		105	70 - 130
Chlorobenzene	50.0	51.0		ug/L		102	70 - 130
1,2-Dichlorobenzene	50.0	53.8		ug/L		108	70 - 130
1,3-Dichlorobenzene	50.0	52.7		ug/L		105	70 - 130
1,4-Dichlorobenzene	50.0	52.5		ug/L		105	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	105		70 - 130
Dibromofluoromethane	96		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: LCSD 680-223910/5

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 223910

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	51.4		ug/L		103	70 - 130	2	30
Chlorobenzene	50.0	50.7		ug/L		101	70 - 130	1	30
1,2-Dichlorobenzene	50.0	53.0		ug/L		106	70 - 130	1	30
1,3-Dichlorobenzene	50.0	51.6		ug/L		103	70 - 130	2	30
1,4-Dichlorobenzene	50.0	51.8		ug/L		104	70 - 130	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	104		70 - 130
Dibromofluoromethane	96		70 - 130
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: MB 680-224198/7

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 224198

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0		ug/L			12/20/11 12:48	1
Chlorobenzene	1.0	U	1.0		ug/L			12/20/11 12:48	1

QC Sample Results

Client: Solutia Inc.
Project/Site: WGG Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-224198/7

Matrix: Water

Analysis Batch: 224198

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Result	MB MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			12/20/11 12:48	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			12/20/11 12:48	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			12/20/11 12:48	1

Surrogate	%Recovery	MB MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		70 - 130		12/20/11 12:48	1
Dibromofluoromethane	93		70 - 130		12/20/11 12:48	1
Toluene-d8 (Surr)	106		70 - 130		12/20/11 12:48	1

Lab Sample ID: LCS 680-224198/4

Matrix: Water

Analysis Batch: 224198

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS Result Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	52.0	ug/L		104	70 - 130
Chlorobenzene	50.0	48.5	ug/L		97	70 - 130
1,2-Dichlorobenzene	50.0	51.1	ug/L		102	70 - 130
1,3-Dichlorobenzene	50.0	50.1	ug/L		100	70 - 130
1,4-Dichlorobenzene	50.0	49.8	ug/L		100	70 - 130

Surrogate	%Recovery	LCS LCS Qualifier	Limits
4-Bromofluorobenzene	102		70 - 130
Dibromofluoromethane	96		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: LCSD 680-224198/5

Matrix: Water

Analysis Batch: 224198

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD Result Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	53.5	ug/L		107	70 - 130	3	30
Chlorobenzene	50.0	51.2	ug/L		102	70 - 130	5	30
1,2-Dichlorobenzene	50.0	54.6	ug/L		109	70 - 130	7	30
1,3-Dichlorobenzene	50.0	52.2	ug/L		104	70 - 130	4	30
1,4-Dichlorobenzene	50.0	53.1	ug/L		106	70 - 130	6	30

Surrogate	%Recovery	LCSD LCSD Qualifier	Limits
4-Bromofluorobenzene	105		70 - 130
Dibromofluoromethane	99		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: 680-74988-4 MS

Matrix: Water

Analysis Batch: 224198

Client Sample ID: GWE-2D-1211

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS Result Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	18		50.0	72.2	ug/L		108	70 - 130
Chlorobenzene	19		50.0	69.7	ug/L		101	70 - 130
1,2-Dichlorobenzene	1.2		50.0	51.8	ug/L		101	70 - 130

QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-74988-4 MS

Matrix: Water

Analysis Batch: 224198

Client Sample ID: GWE-2D-1211

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	%Rec.	
	Result	Qualifier		Result	Qualifier				Limits	
1,3-Dichlorobenzene	1.0	U	50.0	51.0		ug/L		101	70 - 130	
1,4-Dichlorobenzene	2.9		50.0	53.9		ug/L		102	70 - 130	
Surrogate										
	MS	MS								
	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene	101		70 - 130							
Dibromofluoromethane	95		70 - 130							
Toluene-d8 (Surr)	103		70 - 130							

Lab Sample ID: 680-74988-4 MSD

Matrix: Water

Analysis Batch: 224198

Client Sample ID: GWE-2D-1211

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier		Result	Qualifier				Limits		RPD	Limit
Benzene	18		50.0	70.9		ug/L		105	70 - 130		2	30
Chlorobenzene	19		50.0	68.2		ug/L		98	70 - 130		2	30
1,2-Dichlorobenzene	1.2		50.0	51.4		ug/L		100	70 - 130		1	30
1,3-Dichlorobenzene	1.0	U	50.0	49.9		ug/L		100	70 - 130		2	30
1,4-Dichlorobenzene	2.9		50.0	53.1		ug/L		100	70 - 130		1	30
Surrogate												
	MSD	MSD										
	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene	99		70 - 130									
Dibromofluoromethane	93		70 - 130									
Toluene-d8 (Surr)	104		70 - 130									



Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 680-223685/1

Matrix: Water

Analysis Batch: 223685

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ethane	1.1	U	1.1		ug/L			12/14/11 21:36	1
Ethylene	1.0	U	1.0		ug/L			12/14/11 21:36	1
Methane	0.58	U	0.58		ug/L			12/14/11 21:36	1

Lab Sample ID: LCS 680-223685/3

Matrix: Water

Analysis Batch: 223685

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	
Ethane	282	263		ug/L		93	75 - 125	
Ethylene	271	256		ug/L		94	75 - 125	
Methane	153	147		ug/L		96	75 - 125	

QC Sample Results

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCSD 680-223685/4
Matrix: Water
Analysis Batch: 223685

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane	282	312		ug/L		111	75 - 125	17	30
Ethylene	271	297		ug/L		110	75 - 125	15	30
Methane	153	173		ug/L		113	75 - 125	16	30

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 680-222847/1-A
Matrix: Water
Analysis Batch: 222959

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 222847



Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iron	0.050	U	0.050		mg/L		12/07/11 09:59	12/08/11 03:09	1
Iron, Dissolved	0.050	U	0.050		mg/L		12/07/11 09:59	12/08/11 03:09	1
Manganese	0.010	U	0.010		mg/L		12/07/11 09:59	12/08/11 03:09	1
Manganese, Dissolved	0.010	U	0.010		mg/L		12/07/11 09:59	12/08/11 03:09	1

Lab Sample ID: LCS 680-222847/2-A
Matrix: Water
Analysis Batch: 222959

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 222847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1.00	0.929		mg/L		93	75 - 125
Iron, Dissolved	1.00	0.929		mg/L		93	75 - 125
Manganese	0.500	0.472		mg/L		94	75 - 125
Manganese, Dissolved	0.500	0.472		mg/L		94	75 - 125

Lab Sample ID: MB 680-222916/1-A
Matrix: Water
Analysis Batch: 223594

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 222916

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iron	0.050	U	0.050		mg/L		12/07/11 17:20	12/14/11 02:53	1
Iron, Dissolved	0.050	U	0.050		mg/L		12/07/11 17:20	12/14/11 02:53	1
Manganese	0.010	U	0.010		mg/L		12/07/11 17:20	12/14/11 02:53	1
Manganese, Dissolved	0.010	U	0.010		mg/L		12/07/11 17:20	12/14/11 02:53	1

Lab Sample ID: LCS 680-222916/2-A
Matrix: Water
Analysis Batch: 223594

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 222916

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1.00	1.05		mg/L		105	75 - 125
Iron, Dissolved	1.00	1.05		mg/L		105	75 - 125
Manganese	0.500	0.529		mg/L		106	75 - 125
Manganese, Dissolved	0.500	0.529		mg/L		106	75 - 125

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QC Sample Results

Client: Solutia Inc.
Project/Site: W GK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Method: 310.1 - Alkalinity

Lab Sample ID: MB 680-222831/5
Matrix: Water
Analysis Batch: 222831

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Alkalinity	5.0	U	5.0		mg/L			12/06/11 18:02	1
Carbon Dioxide, Free	5.0	U	5.0		mg/L			12/06/11 18:02	1

Lab Sample ID: LCS 680-222831/6
Matrix: Water
Analysis Batch: 222831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
Alkalinity	183	176		mg/L		96	80 - 120	



Lab Sample ID: LCSD 680-222831/19
Matrix: Water
Analysis Batch: 222831

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec. Limits		RPD Limit
		Result	Qualifier						
Alkalinity	183	163		mg/L		89	80 - 120		8 30

Lab Sample ID: MB 680-223199/5
Matrix: Water
Analysis Batch: 223199

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Alkalinity	5.0	U	5.0		mg/L			12/09/11 16:35	1
Carbon Dioxide, Free	5.0	U	5.0		mg/L			12/09/11 16:35	1

Lab Sample ID: LCS 680-223199/7
Matrix: Water
Analysis Batch: 223199

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
Alkalinity	183	163		mg/L		89	80 - 120	

Lab Sample ID: LCSD 680-223199/33
Matrix: Water
Analysis Batch: 223199

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec. Limits		RPD Limit
		Result	Qualifier						
Alkalinity	183	163		mg/L		89	80 - 120		0 30

Method: 325.2 - Chloride

Lab Sample ID: MB 680-224981/35
Matrix: Water
Analysis Batch: 224981

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	1.0	U	1.0		mg/L			12/29/11 11:05	1

QC Sample Results

Client: Solutia Inc.
Project/Site: W GK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Method: 325.2 - Chloride (Continued)

Lab Sample ID: LCS 680-224981/2

Matrix: Water

Analysis Batch: 224981

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Chloride	50.0	51.3		mg/L		103	85 - 115	

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-222817/14

Matrix: Water

Analysis Batch: 222817

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.050		mg/L			12/06/11 15:41	1



Lab Sample ID: LCS 680-222817/15

Matrix: Water

Analysis Batch: 222817

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Nitrate as N	0.497	0.503		mg/L		101	90 - 110	
Nitrate Nitrite as N	0.998	1.00		mg/L		100	90 - 110	
Nitrite as N	0.502	0.499		mg/L		99	90 - 110	

Lab Sample ID: MB 680-222914/14

Matrix: Water

Analysis Batch: 222914

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.050		mg/L			12/07/11 16:49	1

Lab Sample ID: LCS 680-222914/15

Matrix: Water

Analysis Batch: 222914

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Nitrate as N	0.497	0.504		mg/L		102	90 - 110	
Nitrate Nitrite as N	0.998	0.997		mg/L		100	90 - 110	
Nitrite as N	0.502	0.493		mg/L		98	90 - 110	

Method: 375.4 - Sulfate

Lab Sample ID: MB 680-223003/1

Matrix: Water

Analysis Batch: 223003

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	5.0	U	5.0		mg/L			12/08/11 12:37	1

JAN 05 2012

TestAmerica Savannah

QC Sample Results

Client: Solutia Inc.
Project/Site: WGG Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Method: 375.4 - Sulfate (Continued)

Lab Sample ID: LCS 680-223003/2 Client Sample ID: Lab Control Sample
Matrix: Water Prep Type: Total/NA
Analysis Batch: 223003

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.3		mg/L		96	75 - 125

Lab Sample ID: MB 680-224897/1 Client Sample ID: Method Blank
Matrix: Water Prep Type: Total/NA
Analysis Batch: 224897

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	5.0	U	5.0		mg/L			12/28/11 15:20	1

Lab Sample ID: LCS 680-224897/2 Client Sample ID: Lab Control Sample
Matrix: Water Prep Type: Total/NA
Analysis Batch: 224897

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	18.8		mg/L		94	75 - 125

Method: 415.1 - DOC

Lab Sample ID: MB 680-224100/1 Client Sample ID: Method Blank
Matrix: Water Prep Type: Dissolved
Analysis Batch: 224100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.0		mg/L			12/15/11 18:27	1

Lab Sample ID: LCS 680-224100/2 Client Sample ID: Lab Control Sample
Matrix: Water Prep Type: Dissolved
Analysis Batch: 224100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Organic Carbon	20.0	19.4		mg/L		97	80 - 120

Method: 415.1 - TOC

Lab Sample ID: MB 680-224825/2 Client Sample ID: Method Blank
Matrix: Water Prep Type: Total/NA
Analysis Batch: 224825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0		mg/L			12/27/11 13:30	1

Lab Sample ID: LCS 680-224825/4 Client Sample ID: Lab Control Sample
Matrix: Water Prep Type: Total/NA
Analysis Batch: 224825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	20.0	19.6		mg/L		98	80 - 120

QC Association Summary

Client: Solutia Inc.
Project/Site: WKG Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

GC/MS VOA

Analysis Batch: 223436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74966-6	4Q11 SUPP Trip Blank #3	Total/NA	Water	8260B	
LCS 680-223436/3	Lab Control Sample	Total/NA	Water	6260B	
LCSD 680-223436/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-223436/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 223910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-4	GWE-1D-1211	Total/NA	Water	8260B	
680-74941-6	GWE-2D-1211-EB	Total/NA	Water	8280B	
680-74941-7	4Q11 SUPP Trip Blank #2	Total/NA	Water	8260B	
LCS 680-223910/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-223910/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-223910/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 224198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74988-1	GWE-3D-1211	Total/NA	Water	8260B	
680-74988-3	GWE-3D-1211-AD	Total/NA	Water	8260B	
680-74988-4	GWE-2D-1211	Total/NA	Water	8260B	
680-74988-4 MS	GWE-2D-1211	Total/NA	Water	8280B	
680-74988-4 MSD	GWE-2D-1211	Total/NA	Water	8280B	
LCS 680-224198/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-224198/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-224198/7	Method Blank	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 223685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-4	GWE-1D-1211	Total/NA	Water	RSK-175	
680-74988-1	GWE-3D-1211	Total/NA	Water	RSK-175	
680-74988-4	GWE-2D-1211	Total/NA	Water	RSK-175	
LCS 680-223685/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-223685/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
MB 680-223685/1	Method Blank	Total/NA	Water	RSK-175	

Metals

Prep Batch: 222847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-4	GWE-1D-1211	Total Recoverable	Water	3005A	
680-74941-5	GWE-1D-F(0.2)-1211	Dissolved	Water	3005A	
LCS 680-222847/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 680-222847/1-A	Method Blank	Total Recoverable	Water	3005A	

Prep Batch: 222916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74988-1	GWE-3D-1211	Total Recoverable	Water	3005A	
680-74988-2	GWE-3D-F(0.2)-1211	Dissolved	Water	3005A	
680-74988-4	GWE-2D-1211	Total Recoverable	Water	3005A	
680-74988-5	GWE-2D-F(0.2)-1211	Dissolved	Water	3005A	
LCS 680-222916/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

QC Association Summary

Client: Solutia Inc.
Project/Site: W GK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Metals (Continued)

Prep Batch: 222916 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-222916/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 222959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-4	GWE-1D-1211	Total Recoverable	Water	6010B	222847
680-74941-5	GWE-1D-F(0.2)-1211	Dissolved	Water	6010B	222847
LCS 680-222847/2-A	Lab Control Sample	Total Recoverable	Water	6010B	222847
MB 680-222847/1-A	Method Blank	Total Recoverable	Water	6010B	222847

Analysis Batch: 223594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74986-1	GWE-3D-1211	Total Recoverable	Water	6010B	222916
680-74988-2	GWE-3D-F(0.2)-1211	Dissolved	Water	6010B	222916
680-74988-4	GWE-2D-1211	Total Recoverable	Water	6010B	222916
680-74988-5	GWE-2D-F(0.2)-1211	Dissolved	Water	6010B	222916
LCS 680-222916/2-A	Lab Control Sample	Total Recoverable	Water	6010B	222916
MB 680-222916/1-A	Method Blank	Total Recoverable	Water	6010B	222916

General Chemistry

Analysis Batch: 222817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-4	GWE-1D-1211	Total/NA	Water	353.2	
LCS 680-222817/15	Lab Control Sample	Total/NA	Water	353.2	
MB 880-222817/14	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 222831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-4	GWE-1D-1211	Total/NA	Water	310.1	
LCS 680-222831/6	Lab Control Sample	Total/NA	Water	310.1	
LCSD 680-222831/19	Lab Control Sample Dup	Total/NA	Water	310.1	
MB 680-222831/5	Method Blank	Total/NA	Water	310.1	

Analysis Batch: 222914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74988-1	GWE-3D-1211	Total/NA	Water	353.2	
680-74988-4	GWE-2D-1211	Total/NA	Water	353.2	
LCS 680-222914/15	Lab Control Sample	Total/NA	Water	353.2	
MB 680-222914/14	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 223003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-4	GWE-1D-1211	Total/NA	Water	375.4	
LCS 680-223003/2	Lab Control Sample	Total/NA	Water	375.4	
MB 680-223003/1	Method Blank	Total/NA	Water	375.4	

Analysis Batch: 223199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74988-1	GWE-3D-1211	Total/NA	Water	310.1	
680-74988-4	GWE-2D-1211	Total/NA	Water	310.1	
LCS 680-223199/7	Lab Control Sample	Total/NA	Water	310.1	
LCSD 680-223199/33	Lab Control Sample Dup	Total/NA	Water	310.1	

QC Association Summary

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

General Chemistry (Continued)

Analysis Batch: 223199 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-223199/5	Method Blank	Total/NA	Water	310.1	

Analysis Batch: 224100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-5	GWE-1D-F(0.2)-1211	Dissolved	Water	415.1	
LCS 680-224100/2	Lab Control Sample	Dissolved	Water	415.1	
MB 880-224100/1	Method Blank	Dissolved	Water	415.1	

Analysis Batch: 224825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-4	GWE-1D-1211	Total/NA	Water	415.1	
680-74988-1	GWE-3D-1211	Total/NA	Water	415.1	
680-74988-4	GWE-2D-1211	Total/NA	Water	415.1	
LCS 680-224825/4	Lab Control Sample	Total/NA	Water	415.1	
MB 680-224825/2	Method Blank	Total/NA	Water	415.1	

Analysis Batch: 224846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74988-2	GWE-3D-F(0.2)-1211	Dissolved	Water	415.1	
680-74988-5	GWE-2D-F(0.2)-1211	Dissolved	Water	415.1	

Analysis Batch: 224897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74988-1	GWE-3D-1211	Total/NA	Water	375.4	
680-74988-4	GWE-2D-1211	Total/NA	Water	375.4	
LCS 680-224897/2	Lab Control Sample	Total/NA	Water	375.4	
MB 680-224897/1	Method Blank	Total/NA	Water	375.4	

Analysis Batch: 224981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74941-4	GWE-1D-1211	Total/NA	Water	325.2	
680-74988-1	GWE-3D-1211	Total/NA	Water	325.2	
680-74988-4	GWE-2D-1211	Total/NA	Water	325.2	
LCS 880-224981/2	Lab Control Sample	Total/NA	Water	325.2	
MB 680-224981/35	Method Blank	Total/NA	Water	325.2	

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TestAmerica Savannah

Lab Chronicle

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: GWE-1D-1211

Lab Sample ID: 680-74941-4

Date Collected: 12/05/11 14:35

Matrix: Water

Date Received: 12/06/11 11:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	223910	12/16/11 00:58	WJC	TAL SAV
Total/NA	Analysis	RSK-175		1	223685	12/14/11 23:35	SMC	TAL SAV
Total Recoverable	Prep	3005A			222847	12/07/11 09:59	RAM	TAL SAV
Total Recoverable	Analysis	6010B		1	222959	12/08/11 05:15	BCB	TAL SAV
Total/NA	Analysis	353.2		1	222817	12/06/11 15:51	JNC	TAL SAV
Total/NA	Analysis	310.1		1	222831	12/06/11 19:20	TH	TAL SAV
Total/NA	Analysis	375.4		10	223003	12/08/11 12:41	JR	TAL SAV
Total/NA	Analysis	415.1		1	224825	12/27/11 14:54	JR	TAL SAV
Total/NA	Analysis	325.2		1	224981	12/29/11 10:04	JR	TAL SAV

Client Sample ID: GWE-1D-F(0.2)-1211

Lab Sample ID: 680-74941-5

Date Collected: 12/05/11 14:35

Matrix: Water

Date Received: 12/06/11 11:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			222847	12/07/11 09:59	RAM	TAL SAV
Dissolved	Analysis	6010B		1	222959	12/08/11 05:00	BCB	TAL SAV
Dissolved	Analysis	415.1		1	224100	12/15/11 18:27	JR	TAL SAV

Client Sample ID: GWE-2D-1211-EB

Lab Sample ID: 680-74941-6

Date Collected: 12/05/11 15:00

Matrix: Water

Date Received: 12/06/11 11:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	223910	12/15/11 23:51	WJC	TAL SAV

Client Sample ID: 4Q11 SUPP Trip Blank #2

Lab Sample ID: 680-74941-7

Date Collected: 12/05/11 00:00

Matrix: Water

Date Received: 12/06/11 11:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	223910	12/15/11 22:21	WJC	TAL SAV

Client Sample ID: GWE-3D-1211

Lab Sample ID: 680-74988-1

Date Collected: 12/06/11 09:10

Matrix: Water

Date Received: 12/07/11 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	224198	12/20/11 13:16	RB	TAL SAV
Total/NA	Analysis	RSK-175		1	223685	12/14/11 23:47	SMC	TAL SAV
Total Recoverable	Prep	3005A			222916	12/12/11 08:20	RAM	TAL SAV
Total Recoverable	Analysis	6010B		1	223594	12/14/11 04:29	BCB	TAL SAV
Total/NA	Analysis	353.2		1	222914	12/07/11 16:55	JNC	TAL SAV

Lab Chronicle

Client: Solutia Inc.
Project/Site: W GK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: GWE-3D-1211

Lab Sample ID: 680-74988-1

Date Collected: 12/06/11 09:10

Matrix: Water

Date Received: 12/07/11 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	310.1		1	223199	12/09/11 19:21	TH	TAL SAV
Total/NA	Analysis	415.1		1	224825	12/27/11 15:08	JR	TAL SAV
Total/NA	Analysis	375.4		5	224897	12/28/11 15:50	JR	TAL SAV
Total/NA	Analysis	325.2		1	224981	12/29/11 10:04	JR	TAL SAV

Client Sample ID: GWE-3D-F(0.2)-1211

Lab Sample ID: 680-74988-2

Date Collected: 12/06/11 09:10

Matrix: Water

Date Received: 12/07/11 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			222918	12/12/11 08:20	RAM	TAL SAV
Dissolved	Analysis	6010B		1	223594	12/14/11 04:34	BCB	TAL SAV
Dissolved	Analysis	415.1		1	224846	12/27/11 13:20	JR	TAL SAV

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Client Sample ID: GWE-3D-1211-AD

Lab Sample ID: 680-74988-3

Date Collected: 12/06/11 09:10

Matrix: Water

Date Received: 12/07/11 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	224198	12/20/11 13:45	RB	TAL SAV

Client Sample ID: GWE-2D-1211

Lab Sample ID: 680-74988-4

Date Collected: 12/06/11 10:35

Matrix: Water

Date Received: 12/07/11 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	224198	12/20/11 16:09	RB	TAL SAV
Total/NA	Analysis	RSK-175		1	223685	12/15/11 00:00	SMC	TAL SAV
Total Recoverable	Prep	3005A			222916	12/12/11 08:20	RAM	TAL SAV
Total Recoverable	Analysis	6010B		1	223594	12/14/11 04:39	BCB	TAL SAV
Total/NA	Analysis	353.2		1	222914	12/07/11 16:57	JNC	TAL SAV
Total/NA	Analysis	310.1		1	223199	12/09/11 19:31	TH	TAL SAV
Total/NA	Analysis	415.1		1	224825	12/27/11 15:22	JR	TAL SAV
Total/NA	Analysis	375.4		10	224897	12/28/11 15:54	JR	TAL SAV
Total/NA	Analysis	325.2		1	224981	12/29/11 10:04	JR	TAL SAV

Client Sample ID: GWE-2D-F(0.2)-1211

Lab Sample ID: 680-74988-5

Date Collected: 12/06/11 10:35

Matrix: Water

Date Received: 12/07/11 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			222916	12/12/11 08:20	RAM	TAL SAV
Dissolved	Analysis	6010B		1	223594	12/14/11 04:54	BCB	TAL SAV

Lab Chronicle

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Client Sample ID: GWE-2D-F(0.2)-1211

Lab Sample ID: 680-74988-5

Date Collected: 12/06/11 10:35

Matrix: Water

Date Received: 12/07/11 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	415.1		1	224646	12/27/11 13:20	JR	TAL SAV

Client Sample ID: 4Q11 SUPP Trip Blank #3

Lab Sample ID: 680-74988-6

Date Collected: 12/06/11 00:00

Matrix: Water

Date Received: 12/07/11 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	223436	12/12/11 22:53	AJMC	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Savannah
5102 LaRoche Avenue

Savannah, GA 31404
phone 912.354.7858 fax 912.352.0165

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Dave Palmer		Site Contact: Nathan McNurlen		Date: 12/5/11		COC No:									
URS Corporation		Tel/Fax: (314) 743-4154		Lab Contact: Lidya Gulizia		Carrier: FedEx		2 of 2 COCs									
1001 Highlands Plaza Drive West, Suite 300		Analysis Turnaround Time						Job No.									
St. Louis, MO 63110		Calendar (C) or Work Days (W) <u>C</u>						21562722-00001									
(314) 429-0100 Phone		TAT if different from Below <u>Standard</u>						21562703-00000-000									
(314) 429-0462 FAX		<input checked="" type="checkbox"/> 2 weeks						SDG No.									
Project Name: 4Q11 Supplemental GW Sampling		<input type="checkbox"/> 1 week															
Site: Solutia WG Krummrich Facility		<input type="checkbox"/> 2 days															
PO#		<input type="checkbox"/> 1 day															
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs by 8260	Total Fe/Mn by 6010B	Al/CO2 by 310.1	Chloride by 325.2/Sulfate by 375.4	Methane by RSK 175	Nitrate by 353.2	TOC by 415.1	Dissolved Fe/Mn by 6010B	DOC by 415.1	Sample Specific Notes:
GWE-1D -1211 ✓	12/5/11	1435	G	Water	12			3	1	1	3	2	1				
GWE-1D -F(0.2)-1211 ✓	12/5/11	1435	G	Water	2	X								1	1		
GWE-2D-1211-EB ✓	12/5/11	1500	G	W	3		3										
4Q11 SUPP Trip Blank # 2 ✓		12/5/11		Water	2		2										
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other							2	1	4	1	1	1	3	1	2	4	2
Possible Hazard Identification							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)										
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>							<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months										
Special Instructions/QC Requirements & Comments: Level 4 Data Package																	
Relinquished by: <u>[Signature]</u>		Company: URS		Date/Time: 12/5/11 1530		Received by: <u>[Signature]</u>		Company: THA		Date/Time: 12/5/11 1530		Temp 2-8°C, 1-4°C					
Relinquished by: <u>[Signature]</u>		Company: THA		Date/Time: 12/5/11 1710		Received by: Beth A Daugherty		Company: TASA		Date/Time: 12-06-11 1107							
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:							

Savannah

5102 LaRoche Avenue

Savannah, GA 31404

phone 912.354.7858 fax 912.352.0165

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

URS Corporation		Client Contact		Project Manager: Dave Palmer		Site Contact: Nathan McNurlen		Date: 12/10/11		COC No: 1 of 1 COCs	
1001 Highlands Plaza Drive West, Suite 300		Tel/Fax: (314) 743-4154		Lab Contact: Lida Gulizia		Carrier: FedEx		Job No. 21562722.00001		SDG No. 24562722-000008-MC	
St. Louis, MO 63110		Analysis Turnaround Time		Calendar (C) or Work Days (W) C		TAT if different from below Standard		Dissolved Fe/Mn by 6010B		DOC by 415.1	
(314) 429-0100		2 weeks		1 week		2 days		Nitrate by 353.2		TOC by 415.1	
(314) 429-0462		1 day		Sample Type		Sample Time		Chloride by 375.4		Methane by RSK 175	
Project Name: 4Q11 Supplemental GW Sampling		Sample Date		Sample Type		Sample Time		Alk/CO2 by 310.1		Total Fe/Mn by 6010B	
Slit: Solutia WG Krummrich Facility		Matrix		Type		Time		VOCs by 8260		Sample Specific Notes:	
PO#		# of Cont.		Water		12		3		1	
GWE-3D-1211		G		0910		G		2		1	
GWE-3D-1211-AD		G		0910		G		3		1	
GWE-3D-1211		G		1035		G		3		1	
GWE-2D-1211-MS		G		1035		G		3		1	
GWE-2D-1211-MSD		G		1035		G		3		1	
4Q11 SUPP Trip Blank # 3		Water		2		2		2		2	
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other		Unknown		Poison B		Poison A		Disposal By Lab		Archive For	
Possible Hazard Identification		Non-Hazard		Flammable		Skin Irritant		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Months	
Special Instructions/QC Requirements & Comments: Level 4 Data Package		1.42		680-74988							
Relinquished by: [Signature]		Company: URS		Date/Time: 12/10/11 1600		Received by: [Signature]		Company: [Signature]		Date/Time: 12/10/11 1108	
Relinquished by: [Signature]		Company: [Signature]		Date/Time: 12/10/11 1300		Received by: [Signature]		Company: [Signature]		Date/Time: 12/10/11 1300	
Relinquished by: [Signature]		Company: [Signature]		Date/Time: 12/10/11 1300		Received by: [Signature]		Company: [Signature]		Date/Time: 12/10/11 1300	

Login Sample Receipt Checklist

Client: Solutia Inc.

Job Number: 680-74941-2

SDG Number: KPS070

Login Number: 74941

List Source: TestAmerica Savannah

List Number: 1

Creator: Daughtry, Beth

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0 and 1.4 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	5D MS/MSD cancelled by client; will submit on alt location.
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: Solutia Inc.

Job Number: 680-74941-2

SDG Number: KPS070

Login Number: 74988

List Source: TestAmerica Savannah

List Number: 1

Creator: Conner, Keaton

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	N/A	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

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Certification Summary

Client: Solutia Inc.
Project/Site: WGK Supp GW 4Q11 - DEC 2011

TestAmerica Job ID: 680-74941-2
SDG: KPS070

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Savannah	A2LA	DoD ELAP		0399-01
TestAmerica Savannah	A2LA	ISO/IEC 17025		399.01
TestAmerica Savannah	Alabama	State Program	4	41450
TestAmerica Savannah	Arkansas	Arkansas DOH	6	N/A
TestAmerica Savannah	Arkansas	State Program	6	88-0692
TestAmerica Savannah	California	NELAC	9	3217CA
TestAmerica Savannah	Colorado	State Program	8	N/A
TestAmerica Savannah	Connecticut	State Program	1	PH-0161
TestAmerica Savannah	Delaware	State Program	3	N/A
TestAmerica Savannah	Florida	NELAC	4	E87052
TestAmerica Savannah	Georgia	Georgia EPD	4	N/A
TestAmerica Savannah	Georgia	State Program	4	803
TestAmerica Savannah	Guam	State Program	9	09-005r
TestAmerica Savannah	Hawaii	State Program	9	N/A
TestAmerica Savannah	Illinois	NELAC	5	200022
TestAmerica Savannah	Indiana	State Program	5	N/A
TestAmerica Savannah	Iowa	State Program	7	353
TestAmerica Savannah	Kentucky	Kentucky UST	4	18
TestAmerica Savannah	Kentucky	State Program	4	90084
TestAmerica Savannah	Louisiana	NELAC	6	30690
TestAmerica Savannah	Louisiana	NELAC	6	LA100015
TestAmerica Savannah	Maine	State Program	1	GA00006
TestAmerica Savannah	Maryland	State Program	3	250
TestAmerica Savannah	Massachusetts	State Program	1	M-GA006
TestAmerica Savannah	Michigan	State Program	5	9925
TestAmerica Savannah	Mississippi	State Program	4	N/A
TestAmerica Savannah	Montana	State Program	8	CERT0081
TestAmerica Savannah	Nebraska	State Program	7	TestAmerica-Savannah
TestAmerica Savannah	New Jersey	NELAC	2	GA769
TestAmerica Savannah	New Mexico	State Program	6	N/A
TestAmerica Savannah	New York	NELAC	2	10842
TestAmerica Savannah	North Carolina	North Carolina DENR	4	269
TestAmerica Savannah	North Carolina	North Carolina PHL	4	13701
TestAmerica Savannah	Oklahoma	State Program	6	9984
TestAmerica Savannah	Pennsylvania	NELAC	3	68-00474
TestAmerica Savannah	Puerto Rico	State Program	2	GA00006
TestAmerica Savannah	Rhode Island	State Program	1	LAO00244
TestAmerica Savannah	South Carolina	State Program	4	98001
TestAmerica Savannah	Tennessee	State Program	4	TN02961
TestAmerica Savannah	Texas	NELAC	6	T104704185-08-TX
TestAmerica Savannah	USDA	USDA		SAV 3-04
TestAmerica Savannah	Vermont	State Program	1	87052
TestAmerica Savannah	Virginia	NELAC	3	460161
TestAmerica Savannah	Virginia	State Program	3	302
TestAmerica Savannah	Washington	State Program	10	C1794
TestAmerica Savannah	West Virginia	West Virginia DEP	3	94
TestAmerica Savannah	West Virginia	West Virginia DHHR (DW)	3	9950C
TestAmerica Savannah	Wisconsin	State Program	5	999819810
TestAmerica Savannah	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.